Kodiak Region

Comprehensive Economic Development Strategy

August 2001

Prepared by:

Kodiak Chamber of Commerce

Funded by:
City of Kodiak
Kodiak Island Borough

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SUMMARY

Background

The island group known as the Kodiak Island Archipelago is located in the Gulf of Alaska and encompasses roughly 5,000 square miles of land. By itself, Kodiak Island is 3,588 square miles making it the second largest island in the United States. The Kodiak Island Borough includes all of the archipelago and the Shelikof Strait shore-side lands of Katmai National Park. The Island of Kodiak consists primarily of mountainous terrain, with most peaks ranging between 3,000 and 4,000 feet. The uplands are drained by relatively short, swift, and clear mountain streams.

The population of the Kodiak Island Borough is 13,913. The highest concentration of residents is in the City of Kodiak and the road-connected vicinity surrounding the city. The remainder of the population is distributed among the six remote Native communities around the island.

Economy

The economy of Kodiak is predominantly resource-based, depending on fish harvesting and seafood processing as its largest basic industry. The seafood processing industry provides 21% of the employment in Kodiak. The fish harvesting sector, which is not covered by the state mandatory unemployment security tax (making employment statistics unavailable), represents an estimated 12% of Kodiak's employment. This figure is based on the number of fishing permits held in the Kodiak area and crew factors predicated on the fishery and type of gear used.

The timber industry is another resource-based segment of Kodiak's economy. Almost all of the timber is located on Afognak Island, the second largest island in the archipelago. Timber exported from the Kodiak Island Borough produces a total direct revenue of approximately $10 million per year. During 2000, the harvesters of this private timber paid a severance tax of over $112 thousand to the Kodiak Island Borough. With the economic downturn in Asia, the primary market for Kodiak timber, there has been a steady decline in exports of lumber.

Other significant sectors of the economy are government, tourism and the aerospace industry. Government (not including the U.S. Coast Guard) constitutes 14% of the Kodiak economy by employment. The Coast Guard alone accounts for 17% of Kodiak's employment. The visitor industry in Kodiak continues to grow and generated an estimated revenue of over $19 million in 2000.

The Kodiak Launch Complex (KLC) is the nation's first launch facility not located on federal property and is positioned to meet the challenges and define Alaska's future role in a highly competitive launch industry. The KLC celebrated its first mission November 15, 1998. To date, 3 successful missions have been launched. Two more are scheduled for 2001. According to the Institute of Social and Economic Research (ISER), University of Alaska Anchorage, the economic impact of the November 1998 launch on the Kodiak Island Borough and the state of Alaska was an estimated $1.3 million in sales and $450,000 in payroll. It created an equivalent of 19 year-round jobs.

ISER estimates that people visiting Kodiak to work on the launch spent an additional $14,000 for recreation and personal expenses.

Issues

The major economic development issue faced by the area is the need for diversification, both in seafood harvesting/processing and in the economy in general. Unemployment in Kodiak is highly volatile, ranging from less than 4% to over 16% in 2000, due to the seasonal nature of the fishing industry. Most of the fish products exported from Kodiak are only minimally processed (usually only headed and gutted). Bringing stability to the seafood processing industry by diversifying into additional areas of value-added (secondary) processing, while at the same time diversifying the economy as a whole, is therefore a major economic development goal for Kodiak Island.

Economic development in the remote outlying communities is also an important issue. Most of the communities lack the basic infrastructure needed to achieve economic growth. Comprehensive and coordinated planning with the city governments, tribal councils, and area Native associations and corporations will be necessary to overcome these obstacles. The communities have access to the natural resources of the island and the sea, providing an opportunity for economic development in the fish harvesting, seafood processing, and visitor industries as infrastructure constraints are overcome.

ORGANIZATION & MANAGEMENT- THE CEDS COMMITTEE

The Kodiak Area Chamber of Commerce, having been contracted by the City of Kodiak and the Kodiak Island Borough to provide specific economic development activities, has assembled a Comprehensive Economic Development Strategy Committee. The Committee consists of twenty-six members, are all of who are residents of the Kodiak Island Borough and represent a cross section of the socioeconomic structure of the community.

At the April 19th 2001 meeting, the CEDS Committee adopted the following Mission Statement:

> "to help develop strong economies and healthy communities by providing leadership and information to increase Kodiak Island's economic position."

MEMBER	TYPE OF REPRESENTATION/ INTEREST	ETHNICITY	GENDER
Michael Machulsky, CEDS Chairman Buskin River Inn	Business	White	Male
Wayne Stevens, Executive Director Kodiak Chamber of Commerce	Non-profit Economic Development	White	Male
Debora King, Econ Development Specialist Kodiak Chamber of Commerce	Non-profit Economic Development	White	Female
Lacey Berns AK Marine Conservation Council	Commercial Fishing Advocate	White	Female
Pat Carlson, Manager Kodiak Island Borough	Government Economic Development	White	Male
Kevin Adkins, Mayor City of Port Lions	Government	White	Male
Zach Chichenoff, Mayor City of Ouzinkie	Government	AK Native	Male
Jim Nestic, Mayor City of Old Harbor	Government	White	Male
Allan Panamaroff, Mayor City of Larsen Bay	Government	AK Native	Male
Diana Simeonoff, Mayor City of Akhiok	Government	AK Native	Female
Alicia Reft Karluk Tribal Council	Government	AK Native	Female
Gabrielle Ledoux, Mayor Kodiak Island Borough	Government	White	Female
Carolyn Floyd, Mayor City of Kodiak	Government	White	Female
Charles Davidson, Councilor City of Kodiak	Government	White	Male
Jeff Derrickson Kodiak Wireless	Utility	White	Male
Anthony Drabek Natives of Kodiak	Native For-Profit	AK Native	Male
Pamela Foreman, Executive Director Kodiak Island Convention & Visitors Bureau	Non-Profit Tourism	White	Female
Murphy Forner ERA Aviation	Transportation	White	Male
Tracy Jilge Kodiak Island Healthcare Foundation	Healthcare	White	Female
Rick Lindholm Kodiak Island Housing Authority	Non-profit	White	Male
Matt Moir Alaska Pacific Seafoods	Commercial Fishing	White	Male
Tom Panamaroff Koniag, Inc.	Native For-Profit	AK Native	Male
Darron Scott Kodiak Electric Association	Utility	White	Male
Jeff Stephan United Fisherman's Marketing Association	Commercial Fishing	White	Male
Kodiak Area Native Association	Native Non-Profit		
Linda Freed, Manager City of Kodiak	Government	White	Female

THE AREA AND ITS ECONOMY

Background Information

Historical Perspective of Kodiak's Economy

Since the early 1800s, Kodiak's economy has been based primarily on the fishing industry. The advent of Russian occupation, with the introduction of salt, paved the way for commercial salmon harvesting. The first salmon cannery was built on the Karluk spit in 1882 to take advantage of the huge sockeye runs. By 1889, 5 canneries were operating on the mouth of the Karluk river. Between 1887 and 1928 records indicate that the sockeye harvest ranged between 1,004,500 (1887) to 4,826,200 fish (1901). Intense competition led to the expansion of commercial fishing into other species of salmon. From 1984 to 1999 the average ex-vessel value of the salmon harvest has been $88.3 million. A record harvest of 39 million salmon occurred during 1993 in the Kodiak Management Area (KMA). Kodiak's highly productive salmon industry is due in part to the fact that there are over 800 salmon streams in the KMA.

Before 1950, most Kodiak processing facilities were devoted to salmon. In 1950, 60,000 pounds of king crab were landed and processing capacity was added by building new plants and expanding older ones. The king crab fishery became a major force in Kodiak's economy from 1950 to 1959 as the catch increased from 60,000 to 21 million pounds. In 1968 the City of Kodiak became the largest fishing port in the United States in terms of ex-vessel value. In the late 1960s and the early 1970s when harvest levels began to fall, several processors made the decision to relocate to Unalaska and Dutch Harbor to be closer to the crab supply. This diverted part of the Bering Sea and Aleutian Island harvest away from Kodiak. The 1982/83 season king crab harvest of 8.7 million pounds was the lowest in 24 years, followed by a closure of the fishery by the Department of Fish and Game due to poor stock condition. In 2000, 900,536 pounds of King Crab was landed at the Port of Kodiak.

The 1950s also marked the beginning of the Kodiak Shrimp fishery, with a harvest of 31,886 pounds in 1958. The fishery grew rapidly to an annual catch of 10 to 12 million pounds in the early 1960s. The fishery slowed when shore plants and the fishing fleet were badly damaged by the 1964 earthquake and tidal wave, but then grew rapidly to a peak of 82.2 million pounds in 1971. As Kodiak shrimp catches declined in the late 1970s, much of the vessel effort shifted into the Chignik and South Peninsula areas until those areas demonstrated similar declines in the late 1970s. In 1999, only 6,035 pounds of shrimp was landed at the Port of Kodiak.

As the rate of return for Kodiak processing plants declined due to increased competition for resources and overharvesting, major efforts were made to develop the groundfish fishery. Throughout the 1980s and 1990s, the ex-vessel value of the groundfish landings in Kodiak increased from $528,000 to nearly $44 million, making this one of Kodiak's most valuable fisheries.

Fish processing has provided from ten to nearly forty percent of the total industrial payroll in Kodiak since 1980. Those sectors of the Kodiak economy not directly engaged in fishing consist largely of support services for the fishing industry, or of enterprises that support the people who engage in fishing activities or its support.

Today, fish harvesting and seafood processing still dominate the employment opportunity in Kodiak. Together, these two industries provided a combined 33% of total employment in Kodiak for 2000.

General Description of the Area

The Kodiak Island Archipelago is located in the Gulf of Alaska about 30 miles across Shelikof Strait, and 252 air miles southwest of Anchorage. The island group is approximately 177 miles long and 67 miles across, extending from the Barren Islands on the north, to Chirikof Island and the Semidi Islands group on the south. The Archipelago encompasses roughly 5,000 square miles of land, no point of which is more than 15 miles from the sea. Kodiak Island's 3,588 square miles make it the second largest island in the United States (only the island of Hawaii is larger). The second largest island of the archipelago is Afognak, located north of Kodiak Island. The Kodiak Island Borough includes all of the archipelago and the Shelikof Strait shore-side lands of Katmai National Park. Kodiak Island consists primarily of mountainous terrain, with the ridge of the mountains running northeast-southwest. Although several peaks are greater than 4,000 feet, most range between 3,000 and 4,000 feet. About 40 small cirque glaciers (none greater than 2 miles) are evident along the main divide. Numerous hanging valleys feed into the main canyons radiating from the central divide. The uplands are drained by relatively short, swift and clear mountain streams.

The Barren Islands to the north of Shuyak Island are primarily rocky scapes. Tugidak Island on the south is relatively flat and supports extensive areas of wet and moist tundra. The outlying islands south of the Trinity Islands are lower in elevation than Kodiak Island and support more limited vegetation growth.

From Shuyak Island to northeastern Kodiak Island, stands of Sitka spruce dominate land from shore to the treeline. These stands extend south to a general northwest-southeast dividing line running from Kupreanof Peninsula to Cape Chiniak. Southwest Kodiak Island is relatively flat and supports extensive areas of wet and moist tundra.

Exposed bedrock and shallow soils prevail along the 2500-mile rugged coastline. Northwest Kodiak shows effects of glaciation, with long, narrow fjords and U-shaped valleys. These lie perpendicular to the mountains and the geologic fault lines. Rivers typically enter at the heads of the fjords and are backed by extensive flat lands. The east and southeast coasts of the Archipelago are characterized by shorter, wider estuarine embayments. Southwest Kodiak Island and the Trinity Islands tend toward long, continuous shorelines with few bays. Most of the sandy beaches occur on the west coast of Kodiak Island and the Trinity Islands.

Specific geographic features within the Kodiak Island Borough include: offshore areas; estuaries; lagoons; wetlands and tidelands; rocky islands and sea-cliffs; exposed high-energy coasts; rivers, streams, and lakes; and important upland areas.

Offshore Areas: Offshore areas include submerged lands and waters beyond mean lower low water to the limit of Kodiak Island Borough. Because of the extensive estuarine system of the Borough, offshore areas are those outside the headlands of the estuaries. Living resources are abundant in the Borough's offshore area. Dominant fauna include shellfish, finfish, marine mammals, and marine birds. Kelp and other

macroalgal beds provide habitat for sea otters, spawning herring, and juvenile fish. They are important feeding areas for waterfowl and marine birds, and provide valuable primary production exported as algal drift, which is assimilated elsewhere in the marine ecosystem.

Estuaries: In the borough, most nearshore marine waters are designated as estuarine because of their extensive dilution by fresh water. Estuarine areas are considered to extend from headland to headland of bays, inlets, and fjords. Well-developed delta systems, apparently dominated by tidal action, lie at the head of most Kodiak fjords. Kodiak estuarine areas are highly productive. The complexity of the submarine topography and sediments and good algae growth, including extensive kelp beds, provide basic nutrients and diverse habitat to support herbivore and carnivore populations. In addition, many marine finfish and shellfish utilize the estuarine areas during larval and juvenile stages of development.

Lagoons: Lagoons are most prevalent in the south and southwestern portions of the Archipelago. Unlike other estuarine systems of the Islands, lagoons included in this habitat are shallow and tend to have sandy or flat shorelines.

Wetlands and Tideflats: The presence of coastal tidelands surrounding the Kodiak Archipelago is relatively low; however, the actual amount of habitat varies by region. Kodiak and Afognak Islands have very limited tideflat wetland complexes. Extensive tideflat-wetland complexes usually occur only at the heads of bays or around lagoons on these islands. In addition to these saltwater habitats, large inland wetlands occur in the Karluk River and Ayakulik River drainages in southwestern Kodiak. In sharp contrast to the availability of these habitat types on Kodiak and Afognak Islands, shorelines around the Trinity Islands contain extensive tideflats, and most of the Tugidak Island mainland is wetland habitat. Tideflat-wetland complexes provide valuable habitat for birds and marine mammals, particularly when used in combination with adjacent waters. In addition, the tideflat areas, especially those that are composed of sandy beaches, provide habitat for abundant clam and polychaete populations.

Rocky Islands and Seacliffs: Rocky islands generally have rock or cliff-lined shorelines. Occasionally rocky islands have tundra-vegetated interiors or areas along their coasts that are fairly level. This habitat category applies to most of the offshore islands. Along the coast of the major islands, however, this habitat type is limited to those shores with vertical cliffs. Offshore rocky islands and seacliffs are particularly important to marine mammals and marine birds as haulout and nesting sites. Many of these sites are along the east coast of Kodiak Island in the vicinity of Chiniak and Ugak Bays. The remaining sites are distributed around the archipelago and along the shoreline on the west side of Shelikof Strait.

Exposed High-Energy Coasts: Exposed bedrock shores comprise approximately 50 percent of Kodiak and Afognak Islands, and a large percentage of the Alaska Peninsula coastline on the west side of Shelikof Strait. Almost 90 percent of the Barren Islands are exposed bedrock. Exposed bedrock shores usually have moderate to steep gradients. Exposed high-energy coasts provide habitat for a variety of marine littoral-zone flora and fauna, which in turn are used by important fish and wildlife resources. In

addition, high-energy coasts provide feeding and nesting habitat for bird species and a food source and resting habitat for marine mammals.

Rivers, Streams, and Lakes: The largest lakes and longest rivers within the Borough are located in southwest Kodiak Island. Major southwest lakes include Karluk, Frazer, Red, Akalura, and South Olga lakes. Other important lake systems on Kodiak Island, such as Spiridon, Little River, Uganik, Terror, Buskin, and Lake Rose Tead, are significantly smaller. Small pothole and high mountain lakes are also prevalent. Pothole lakes are generally found along the Upper Ayakulik River, between Olga Bay and the ocean, at the mid-reach of the Karluk River, on the Lower Aluilik Peninsula, and throughout Tugidak Island. Pothole lakes are also prevalent in the north and northeast sections of Afognak Island and on Shuyak Island. Major lakes on Afognak Island include: Selief Lake, Afognak Lake, Big and Little Kitoi Lakes, Pauls, Laura, and Gretchen Lakes, Portage Lake, Little Waterfall Lake, Hidden Lake, and Upper and Lower Melina Lakes. Due to the steep topography of the Aleutian Range mountains on the west side of Shelikof Strait, there are few lakes located in that area of the Kodiak Island Borough. With the exception of the Ayakulik and Karluk rivers in southwest Kodiak Island, rivers in the archipelago tend to be short and steep, often originating in small mountain lakes or small glaciers. Rivers, streams, and lakes provide critical aquatic habitat for resident and anadromous fish populations. In addition, they support summer and winter activities of bird and mammal populations, particularly waterfowl, bear, beaver, and land otters. Rivers and streams are the conduit for the freshwater component of estuarine systems, and serve as a valuable link between upland and marine environments.

Uplands: The archipelago uplands can be subdivided into four general areas based primarily on vegetative and terrain features. These areas are; (1) north of Kodiak Island, (2) the major portion of Kodiak Island, (3) southwest of Kodiak Island, lower Aliulik Peninsula, and the Trinity Islands, and (4) the Alaska Peninsula coastline west of Shelikof Strait. The first category, characterized by well-developed stands of mature Sitka spruce, includes Shuyak, Afognak, Raspberry, Whale, Spruce, and Marmot Islands.

The major portion of Kodiak Island forms the second category of uplands. Upland habitat distributions are closely related to differences in elevation. At very high elevations, unconsolidated material is generally absent. Below the peaks, mountainous areas have typical alpine vegetation. Steep mountains below 3,000 feet have dense shrub and ground cover. Lower slopes and valley floors are covered by sand and gravel of glacial origin, valley alluvium, alluvial fans, talus deposits, and ash from the 1912 eruption of Mt. Katmai. Cottonwood and occasionally Kenai birch, are common stands along the lower reaches of major drainages.

The third region includes southwest Kodiak Island and the Trinity Islands. This region escaped glaciation and is vegetatively and topographically different from the rest of the Kodiak Archipelago. Plants are uniquely similar to species found in the Alaskan Arctic and unlike those found elsewhere in the Archipelago. The area is characterized by extensive moist and wet tundra surrounded by rounded low hills.

The upland terrain along the west side of Shelikof Strait is dominated by the northeast-southwest trending mountains of the Aleutian Range. The short, steep-gradient

drainages to the Gulf of Alaska are generally situated in steep valleys with cottonwood stands along the stream courses. At higher elevations, the vegetation is characteristic alpine tundra and bare rock and soil.

Land Use and Ownership:

Borough Lands - The Kodiak Island Borough owns roughly 30,000 acres of land within the Borough. Most of this land was originally obtained and selected under municipal entitlement from the State of Alaska; the configuration of other parcels are the result of land trades with the State. The majority of Borough land is located on Shuyak Island and Raspberry Island; Ugak Bay and Hidden Basin also include numerous pockets that total a sizeable portion of Borough land acreage. Lease and disposal of Borough lands are subject to approval by the Borough Assembly. The Kodiak Island Borough zoning ordinance contains 18 zoning districts: Watershed (W); Wildlife Habitat (WH), Natural Use Lands (NU); Conservation (C); Rural Development (RD); Rural Residential (RR); Rural Residential One (RR1); Rural Residential Two (RR2); Single Family Residential (R1); Two Family Residential (R2); Multi-Family Residential (R3); Business (B); Rural Neighborhood Commercial (RNC); Urban Neighborhood Commercial (UNC); Retail Business (RB); Light Industrial (LI); Industrial (I); and Public Use Lands (PL). Recreational land use includes 11 municipal parks totaling 60 acres in size.

State Lands - The most significant State lands in the Borough are the vast tidelands. The State also owns a significant amount of upland area in the Borough. Most State uplands are in the northeast part of the Borough near the City of Kodiak, south around Ugak Bay to Dangerous Cape, northeast Afognak Island and Shuyak Island. The Division of State Parks within the Alaska Department of Natural Resources (DNR) manages all state parkland in the Borough. A few areas have had management authority transferred to other State agencies. The Alaska Department of Transportation and Public Facilities manages roads and airport facilities, the Alaska Department of Fish and Game (ADF&G) manages the Tugidak Island Critical Habitat Area and the Division of State Parks within DNR manages state parklands. State parks accessible by road include: Fort Abercrombie, Buskin River and Pasagshak State Recreation Sites. Most of Shuyak Island and a large portion of northeast Afognak Island are undeveloped state parks accessible only by water or air. In total, 5 state parks throughout Kodiak Island comprise 96,228 acres.

Federal Lands - Much of the Borough contains land managed by federal authorities. The major federal landowner in the Borough is the U.S. Fish and Wildlife Service (USFWS). USFWS manages the Kodiak National Wildlife Refuge (KNWR), which comprises 1.8 million acres of the archipelago, the Becharof and Alaska Peninsula National Wildlife Refuge (APNWR), and the Alaska Maritime National Wildlife Refuge (AMNWR). The USFWS is the largest single landowner in the Borough. The Borough boundary on the west, across Shelikof Strait, includes a portion of Katmai National Park managed by the Department of the Interior, National Park Service. The refuges are managed primarily for wildlife, yet allow a wide variety of recreational and commercial uses that do not interfere with the primary purpose of each refuge.

The U.S. Coast Guard (USCG), Department of Transportation, manages several important facilities on Kodiak Island. The U.S. Coast Guard base Kodiak, which is

located near the Kodiak urban area, contains over 21,000 acres. The base complex provides infrastructure to support several Coast Guard Cutters, Air Station Kodiak, Integrated Support Command Kodiak, Communications Station Kodiak, Loran Station Kodiak, Electronic Support Unit Kodiak, North Pacific Fisheries Training Center, Marine Safety Detachment Kodiak, plus several other Coast Guard detachments. The U.S. Navy SEAL (Sea, Air, Land Special Operations) Cold Weather Training Detachment is housed on the base facilities at Spruce Cape. Other tenants located on the main complex include the Federal Aviation Administration, National Oceanic and Atmospheric Administration, the National Weather Service, and the National Marine Fisheries Service. The US Coast Guard base contains a full range of facilities and land uses usually associated with a major urban area, including recreational, residential, institutional, and commercial. The uses of land on the base and other federal facilities are generally exempt from local regulation. However, the uses are subject to federal requirements such as the National Environmental Policy Act (NEPA) and other environmental laws such as the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act.

A portion of the scattered small rural parcels in the Borough are federal trust lands. Except for Native Allotments and Federal Townsite lots, no other federal trust lands, such as Indian reservations, exist in the Borough. These parcels are held in trust by the federal government in the name of the owner. The activities on the parcel and any transfer of title must be approved by the Bureau of Indian Affairs (BIA). Since they are federal trust lands, the parcels are exempt from most local and state regulations, as well as taxation, until ownership is transferred. Federal environmental laws such as NEPA and the Clean Air and Water Acts do apply.

Private Lands - The greatest growth among land ownership categories in the Borough has been privately held lands. Most of the lands selected by the Native regional corporation, Koniag, and the village corporations have been transferred for management or patented to the corporations. Over 675,000 acres of land have been transferred to these private corporations. This amounts to about 14 percent of the total land mass of the Borough. Much of this acreage, such as that on Afognak Island, was selected for timber resources or other development potential. However, some of this acreage was selected from within Wildlife Refuges and contains areas with high habitat values for fish and wildlife. The surface estate to former Wildlife Refuge lands is subject to regulation to ensure its protection in a manner compatible with the management objectives of the Wildlife Refuges and the subsurface estate (mineral rights) to such land was retained by the federal government. Except for lands previously part of a Wildlife Refuge, the subsurface estate of all Native lands is owned by Koniag, Inc.

Population and Urban Centers:

The total population of Kodiak Island Borough is 13,913. Following are descriptions of the major population areas:

The **City of Kodiak** is located near the northeastern tip of Kodiak Island. The city is 45 minutes by air from Anchorage and just over 3 hours flight time from Seattle. The Alaska State Ferry, M/V Tustumena, connects Kodiak with Port Lions and communities of the Kenai Peninsula. The Kodiak State Airport has three paved runways of various

lengths with FAA tower services. Kodiak also features a municipal airport with a 2,883 foot paved runway. There are floatplane facilities at Lilly Lake, St. Paul Harbor, and Trident Basin on Near Island. The city is served by two airlines conducting a total of 7 flights daily between Anchorage and Kodiak.. Kodiak is also served by one all-cargo carrier and one scheduled intra-island carrier. The Port of Kodiak Municipal Harbor, owned by the City of Kodiak, is home to Alaska's largest fishing fleet, having a total of 650 slips. The City of Kodiak has 6,334 residents. The surrounding road-connected residential areas are Chiniak, Monashka Bay, Service District 1, the U.S. Coast Guard base, and Women's Bay. The combined population of these areas is 6,180.

In addition to the City of Kodiak and vicinity, other population concentrations include the six Native communities found in the archipelago:

Ouzinkie is located on the southwest shore of Spruce Island which lies just off the northeast end of Kodiak Island in the Gulf of Alaska. The community of Ouzinkie is 10 air miles north of the City of Kodiak, and 247 air miles southwest of Anchorage. Spruce Island is characterized by swampy areas, volcanic and sedimentary rock, and an abundance of tall spruce trees. Ouzinkie was founded in the early 1800s by the Russian American Company as the site of a retirement community. The current population of Ouzinkie is 225.

Western Pioneer provides cargo service from Seattle at various times through the year. The Island Provider, an intra-Kodiak Island marine cargo vessel, delivers freight on demand from Kodiak. The state of Alaska's 2,500-foot gravel runway is maintained by the City. There is no crosswind runway or tower services. Island Air Service makes scheduled passenger and mail trips to Ouzinkie. Charter service between the City of Kodiak and Ouzinkie is also available from several charter air services.

Port Lions is located near the mouth of Kizhuyak Bay on the north end of Kodiak Island near Whale Island. The community is on the north end of Kodiak Island midway between the City of Kodiak and the Shelikof Strait. The City of Kodiak is 19 air miles to the southeast, with Anchorage 247 air miles to the northeast. The mountainous terrain is covered with Sitka spruce, cottonwood, birch, alder and willow trees. Port Lions was established following the partial destruction of Afognak Village, on Afognak Island, by a tsunami in 1964. Approximately 256 people live in Port Lions.

Cargo service from Seattle is provided by Western Pioneer at various times during the year. From March through September, the State of Alaska's M/V Tustumena ferry stops at Port Lions. The 2,600-foot State-owned gravel airstrip can accommodate small twin-engine aircraft. There is no crosswind runway or tower services. Mail and passenger service is provided by Island Air Service. Charter air service between Port Lions and the City of Kodiak is also available. Float planes can land at the harbor. The 12 miles of gravel-surfaced roads are maintained by the City of Port Lions.

Larsen Bay is located near the junction of Larsen Bay and Uyak Bay fjords on the northwest coast of Kodiak Island. Larsen Bay is 60 miles southwest of the City of Kodiak, and 283 miles southwest of Anchorage. Larsen Bay is situated in a valley between tree and shrub covered hills and mountains. The village of Larsen Bay has been an Alutiiq village for centuries. Russian fur traders brought trade to the area during the mid-1700s. A commercial fish cannery was first established in Larsen Bay in

1912. There are about 115 residents of the village. During the summer months the village of Larsen Bay more than doubles in population as commercial fishing gets underway. Summer and fall are also characterized by an influx of tourists seeking to go sportfishing, bear viewing, deer and waterfowl hunting, and sight-seeing.

A Western Pioneer barge arrives in Larsen Bay from Seattle every six weeks. The Island Provider makes trips from Kodiak upon request. The State of Alaska's 2,500-foot gravel runway has no crosswind runway or tower services. Regular passenger and mail services are provided by Island Air Service. The community is also served daily by several air services from Kodiak. Floatplanes land in the bay near the community. The 3.5 miles of gravel roadway are maintained by the City of Larsen Bay.

Karluk is located on the northwest side of Kodiak Island facing the Shelikof Strait. Karluk is 88 air miles southwest of the City of Kodiak, and 301 air miles southwest of Anchorage. The terrain of the area is characterized by low-lying mountains laced with rivers and streams. The Karluk River runs through the community and features all five species of salmon. In 1786, a permanent community was established as a Russian trading post. In the early 1900s Karluk was a major salmon producing community with several canneries processing millions of fish. A prominent feature in the community is the Karluk Russian Orthodox Church, a historical landmark. There are about 27 people residing in Karluk.

Marine cargo services are available twice a month from the Island Provider operating out of Kodiak. The State of Alaska's 2,400-foot runway can accommodate a Cessna 208 caravan and Navajo aircraft. There is no crosswind runway or control tower. Island Air Service provides regular passenger and mail service. There is about one mile of gravel road in the community.

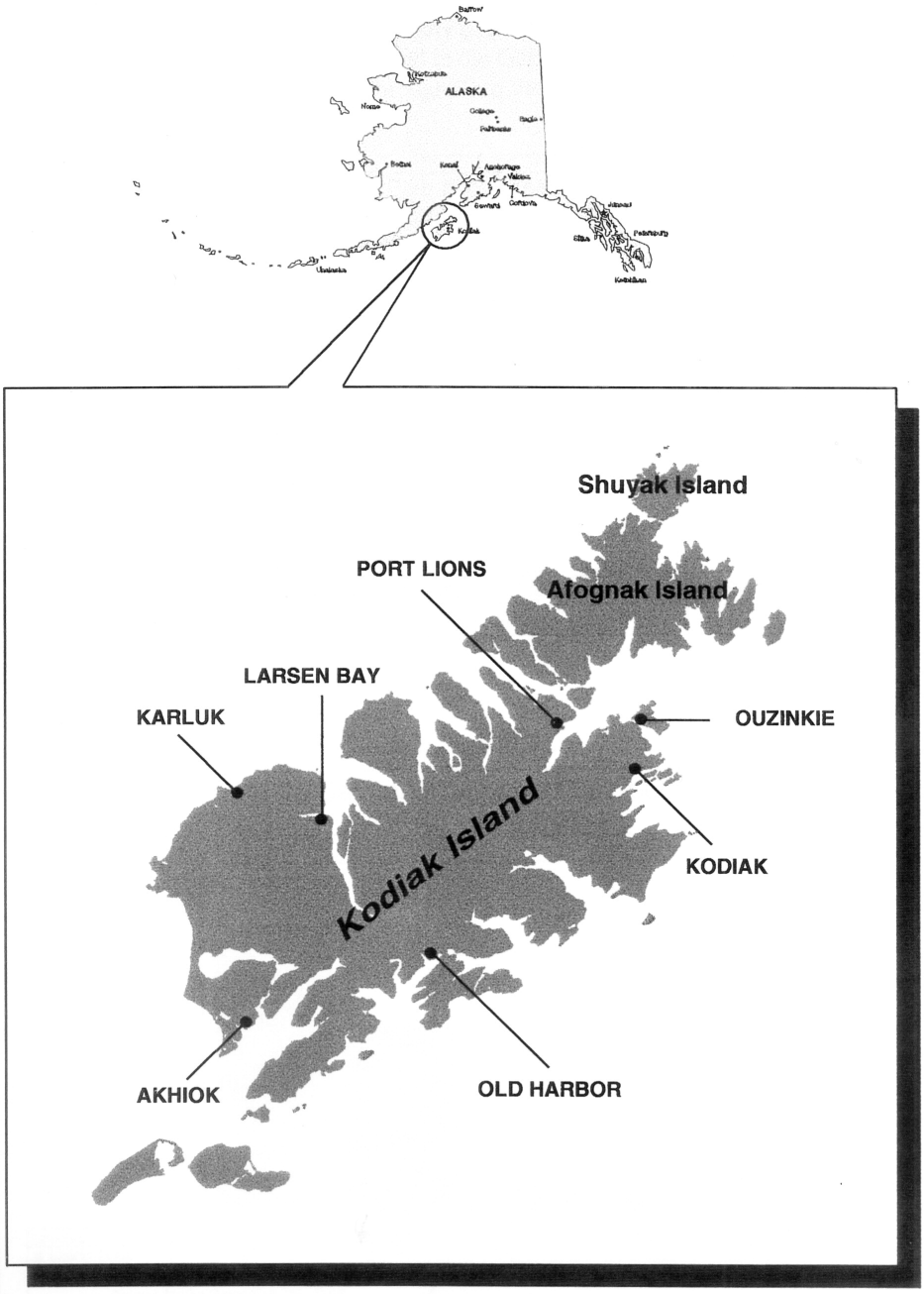
Akhiok is situated on the west side of Alitak Bay between Kemph Bay and Moser Bay on the south end of Kodiak Island. It is about 80 air miles southwest of Kodiak City. The local shoreline is characterized by narrow rocky beaches with a gradual incline up to surrounding uplands. The terrain around Akhiok is low hills and tundra like valleys and flat land. The village site was established in 1881. The tsunami of 1964 destroyed the village of Kaguyak, just to the east of Akhiok, and all the Kaguyak villagers were relocated to Akhiok. There are about 80 people living in Akhiok.

Access to Akhiok is by water or air. Island Air Service provides daily service from Kodiak to Akhiok. Charter flights are also available from other island-based carriers. The State of Alaska operates a 3,120-foot runway south of the town. There is no crosswind runway or tower services. The facility can be used by wheeled general aviation and amphibious float-planes.

Old Harbor is located on the southeast side of Kodiak Island on Sitkalidak Strait off the Gulf of Alaska. The community is about 70 miles southwest of Kodiak and 200 miles southwest of Anchorage. Old Harbor was settled by the Alutiiq people more than 5,000 years ago. The community is the site of the first Russian colony in Alaska. There are about 311 people living in Old Harbor. Old Harbor is the site of a historic Russian Orthodox Church. Old Harbor's economy is based on commercial fishing. Tourism is also a growing part of the economy.

The Island Provider Company offers bimonthly service between Kodiak and Old Harbor. Western Pioneer stops at Old Harbor on a as-requested basis to deliver freight from Seattle. The State of Alaska owns and operates the 2,200-foot runway that can accommodate twin otter aircraft. No flight tower or crosswind runway is available. Island Air Service provides regular passenger and mail service to Old Harbor. The village is also served by several charter air services on a daily basis from the City of Kodiak.

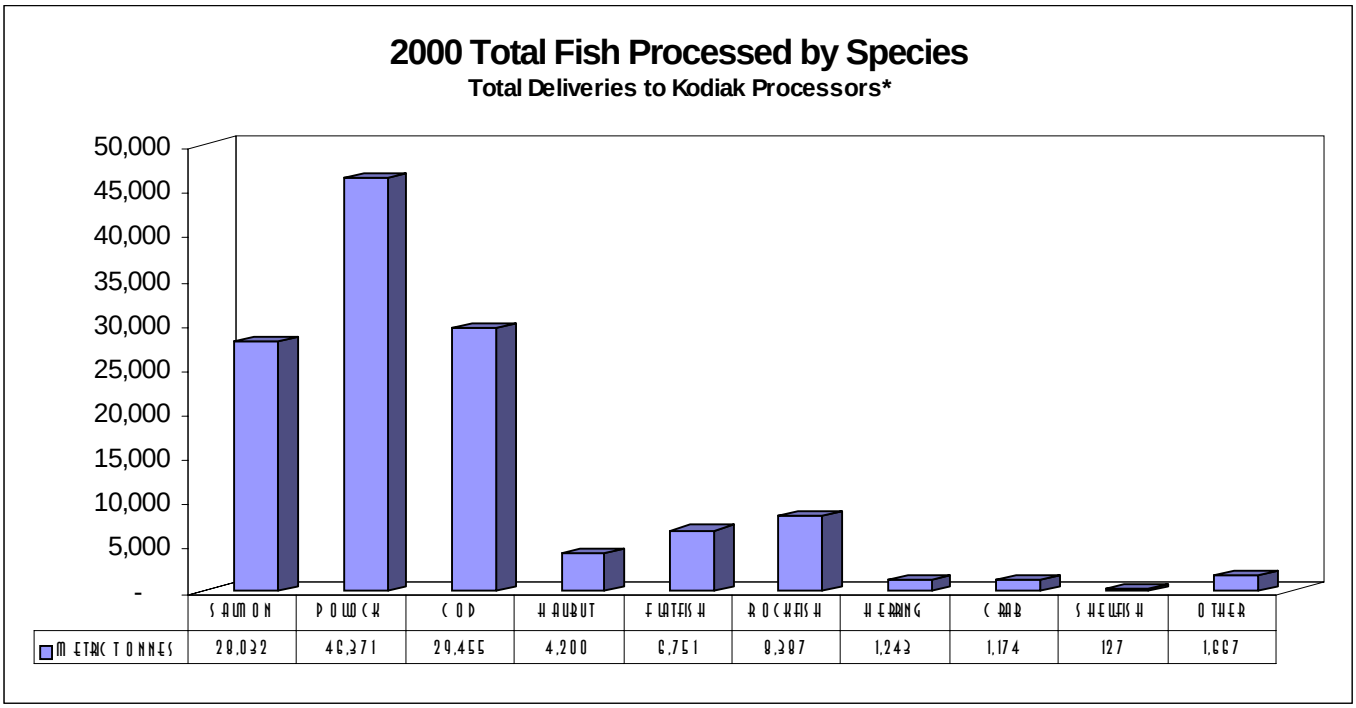
Remainder of Borough. Remote areas of the borough, including Kazakof Bay on Afognak Island (the site of two logging camps), have a total population of approximately 300 people.


ALASKA
Shuyak Island
PORT LIONS
Afognak Island
LARSEN BAY
KARLUK
OUZINKIE
Kodiak Island
KODIAK
AKHIOK
OLD HARBOR

Natural Resources

Fisheries

The most important natural resources to the economy of Kodiak are the fisheries. Fish stocks harvested and brought into Kodiak for processing are found in the Gulf of Alaska, the Aleutian Islands, and the Bering Sea. The quantity of retained catch brought into the Kodiak Island Borough for processing during 2000 is indicated in the graph below.



Source: Alaska Department of Fish and Game

Timber

The forest products industry is an important and growing segment of the Kodiak economy. The Sitka spruce forested area of the Borough continues to expand from its initial occurrence on the northern islands toward both the South and West. Due to the nature of the relatively young emerging stands, the initial open-grown trees have less natural pruning and subsequently exhibit more knots than would similar trees in mature stands or second growth stands with higher volumes per acre. The stands now in place are relatively short in comparison to the more highly developed stands of Southeast Alaska—130 feet as compared to 200 feet in total height. Second growth stands that develop with natural regeneration following clear-cutting will produce more recoverable volume per acre and higher sawlog grades in a shorter period of time than the present stands contain. Approximately two-thirds of the timber recovered from the existing stands is grade 2 or better sawlog material while the remainder is grades 3 and 4 sawlogs. Currently it is estimated that the quantity of timber harvested within the Kodiak Island Borough is 40 million board feet per year, producing a total direct revenue (without including economic multipliers or secondary business economic impact) of

approximately $10 million per year. During 2000, the harvesters of this private timber paid a severance tax of $112,822 to the Kodiak Island Borough.

Outer Continental Shelf

The Kodiak Island Borough contains portions of sedimentary petroleum provinces or basins within the Cook Inlet Planning Area for Oil and Gas Lease 149. Three petroleum-exploration geologic plays are recognized in the sale area. A geologic play is a group of geologically related prospects with a similar hydrocarbon source, reservoir, and trapping mechanism. Only portions of two of these plays, the Mesozoic Structural Play, and the Mesozoic Stratigraphic Play, fall within the boundaries of the Kodiak Island Borough. The Mesozoic Structural Play covers most of the sale area, extending from the northeastern limit of the sale area in Cook Inlet into the northeastern portion of the Shelikof Strait in the Kodiak Island Borough. The Mesozoic Stratigraphic Play is best developed in the central and southern parts of the sale area, running the entire length of the Shelikof Strait and encompassing the northeastern half of the Strait as well as the shore-side lands of the Alaska Peninsula.

The ultimate potential for the base case in the entire sale area (not all of which is located within the boundaries of the Kodiak Island Borough) is estimated to be 500 million barrels. The high side potential is estimated to be 1.2 million barrels. Resource estimates for only those portions of the Sale Area located within the Kodiak Island Borough are not available.

Metallic Minerals

Kodiak Island Borough contains two regional metal provinces—areas characterized by a distinct association or anomalous concentrations of metals. These provinces are also characterized by the potential for mineral development and concentrations of mining claim activity.

The two metal provinces occupy the northwest half of the Borough. The province that extends along the northwest coast of the Borough is rated high for the occurrence of chromium and copper. The second province, which extends from near the northwest coast to the middle of the Borough is not rated high. The major commodities are gold and copper; the minor commodities are lead, zinc, silver, and tungsten.

Exploration for minerals in the Borough has been sporadic and limited to areas of easy access. Nearly all the mineral claims and areas of related activity are located near water passages. The interior portions of the islands are relatively unexplored. It has been estimated that less than 20 percent of the Borough has been adequately prospected. Although no commercial metallic deposits have been discovered in the Archipelago, the potential is present in the form of adequate intrusive units and widespread host rocks. Historically, gold has been the major commodity found in the Borough, in both placer and lode deposits.

Metallic mineral resource development has occurred in the past on a small scale, but at present there are no commercial-scale mining activities.

Placer Deposits. Placer deposits occur along beaches and are believed to be the result of wave and current action on the tills and gravels that form the sea cliffs along portions

of the northern and western coasts. A direct geologic relationship between the placer gold and the gravels and tills has not been established since gold has not been found in these sediments. The ultimate source of the placer gold is probably quartz veins in the slates and graywacks of the interior part of the island. The probability of offshore placer gold deposits is considered low.

Placer operations have generally been small-scale and worked from time to time. It has been estimated that $150,000 worth of gold was recovered from the beach sands in the early twentieth century. Very minor quantities of platinum and chromite were recovered with the placer gold. Magnetite and pyrite have also been recovered from placer deposits.

Lode Deposits. Lode gold prospects, mainly in quartz veins, occur throughout the Borough. The gold lode deposits are associated with the quartz intrusives and with dikes and sills that are probably related at depth to the intrusives. The host rocks are generally slates and graywackes.

The lode deposits were discovered in the late 1800s, and have been sporadically explored and worked since then. Load mining took place mostly before World War I, and to a lesser extent until about 1935. None of the attempts to mine lodes has been commercially successful—with the possible exception of the Amok Claim at Uyak Bay. Several other gold lodes were prospected in the Uyak Bay area around the turn of the century. Some gold was probably taken out of these lodes by their discoverers, but there is no recorded production, and after minor development, they were abandoned. Assays on load of the east shore of Uganik Passage showed high gold tenor, and a small mill was installed on the property in 1935. There is no recorded production.

Scheelite (tungsten ore) was found disseminated as fine grains and veinlets in quartzitic zones in graywacke on Chalet Mountain near the head of Anton Larsen Bay. Investigations on this ore in the late 1950s concluded that these deposits are not commercial. A copper prospect located on the northwestern side of Sitkalidak Island was examined in the late 1930s and early 1940s. At the time, the deposit was not considered commercial. Lode occurrences of other commodities, such as silver, lead, and zinc, have been reported. The occurrence of placer deposits of chromite and platinum suggests the presence of lode deposits along the northwest coast.

Nonmetallic Minerals

Thin beds of coal have been reported in Tertiary sediments in the eastern part of Kodiak and on Sitkinak Island. None of the coal exposed in surface outcrops has sufficient reserves to be considered commercial. A large sand and gravel deposit is located on one of the Trinity Islands.

Environmental Issues

Endangered and Threatened Species

Endangered or threatened species that occur in the Kodiak Island Borough, or may enter the area with varying frequency, include the following:

Fin Whale (endangered): The North Pacific fin whale population, protected from commercial harvest by the IWC since 1976, currently lies between 14,620 and 18,630 individuals, less than half the estimated pre-exploitation population. In Alaska, some whales spend the summer feeding over the continental shelf in the Gulf of Alaska, including portions of lower Cook Inlet, Shelikof Strait, outer banks of the Kodiak archipelago, and along the Alaska Peninsula. Fall migration occurs from September to November with some fin whales consistently wintering in the Kodiak Island area, primarily observed in bays and inshore waters from northwestern to southwestern Kodiak Island and possibly the Gulf of Alaska; however, most of the North Pacific population is believed to winter far offshore at latitudes from central California to Baja California. Northward migrating fin whales enter the Gulf of Alaska from March to June, and peak occurrence in the Kodiak Island-northern Gulf of Alaska area is reached by May.

Humpback Whale (endangered): The North Pacific humpback whale population, estimated to number 4,005 individuals, remains greatly depleted from pre-commercial whaling levels of about 15,000. Humpbacks were protected from commercial harvest by the IWC in 1966. Small numbers of humpbacks have been observed in bays of western and northwestern Kodiak Island. The limited data available suggest that waters along the south side of the Alaska Peninsula to the eastern Aleutians may be of particular importance to summering humpbacks. Substantial numbers of humpbacks have been sighted between the Kenai Peninsula and Afognak Island, with summer feeding aggregations occurring in Marmot Bay and Northeast Afognak Island. In the Barren Islands, as many as 50 individuals have been sighted simultaneously, with at least 100 present in local areas. Humpbacks are estimated to be present in this area from mid-May until late August or September.

Sei Whale (endangered): The North Pacific sei whale population is estimated at 9,110 individuals; a definite trend for this species since its protection by the IWC in 1976 is not evident. Sei whales are found offshore in the Gulf of Alaska and south of the Aleutian Islands in summer, with numbers peaking in May and June. Southward migration begins in August or September.

Beluga Whale (threatened): Beluga whales in Cook Inlet have been listed as threatened under the Marine Mammal Protection Act (MMPA). Over-harvesting by native subsistence hunters has been identified as the cause for the steep population decline over the past decade. However, the MMPA listing, as well as a measure passed by Senator Stevens in Congress, has given the National Marine Fisheries Service the tools that it needs to regulate the native subsistence hunt. As a result, hunters have been limited to a small annual take, as compared to the 80 or more whales they were harvesting annually. The population has now begun to recover with the latest survey showing 435 whales, compared to 350 whales in 1998.

Steller Sea Lion (threatened): The total adult/juvenile (nonpup) Steller (northern) sea lion population in Alaska was estimated to have been 28,658 animals in 1998 and declining, especially in the area from the central Aleutian Islands to at least the Kenai Peninsula in the Gulf of Alaska where a decrease of 66 percent since 1989 has occurred. An estimated 12,299 sea lions occupied the Gulf of Alaska (excluding southeast Alaska) in 1998. A number of sites rather evenly distributed around the Kodiak archipelago have been historically recognized as areas of sea lion concentration. The range of sea lion concentrations extends from the Barren Islands south to Chirikof Island and the Semidi Islands, and to the Alaska Peninsula shoreline on the west side of Shelikof Strait between Katmai Bay and Hallo Bay. Among them are the most important sea lion rookeries in the Gulf of Alaska including Sugarloaf Island, Marmot Island, and Chirikof Island. It is believed that sea lions use these sites year round with fewer present in winter.

Aleutian Canada Goose: Current breeding range of the Aleutian Canada goose includes several islands in the central and western Aleutians, and Kiliktagik and Anowik Island in the Semidi Islands south of the Alaska Peninsula. Peak counts on the wintering areas (California, Oregon) suggest the current population is about 37,000 individuals. The Aleutian Canada Goose was reclassified from endangered to threatened status as of 1991. Due to the cooperative efforts of state, federal, private and international partners the Aleutian Canada Goose is on the verge of a dramatic recovery and will soon be removed from the list of threatened species under the Endangered Species Act.

Steller' Eider (threatened): In March 2000 the US Fish and Wildlife Service proposed to designate approximately 17,000 square miles of land and 8,440 square miles of marine waters as critical habitat for the Alaska-breeding population of Steller's eider, a threatened sea duck. There are three populations of Steller's eider. Two breed in Russia and one breeds in Alaska. Only the Alaska-breeding population is listed as threatened. The historical population size and distribution of Alaska-breeding Steller's eider are not well known, but biologists suspect both the population's breeding range and abundance have decreased significantly due to unknown causes. They estimate a few hundred to a few thousand birds now occupy the North Slope breeding grounds.

Speckled Eider (threatened): In February 2000 the US Fish and Wildlife Service proposed to designate nearly 74,539 square miles of coastal Alaska as critical habitat for the speckled eider, a threatened sea duck that nests only in Alaska and Russia. The species suffered severe declines from the 1970s to the early 1990s. The main threats to this sea duck on its breeding grounds are though to include: lead poisoning from eating spent lead shot; predation by foxes, gulls and jaegers; and hunting and other human disturbances. Biologists are not certain what threats the eider faces at sea, but believe threats could possibly be linked to factors that are causing the decline of other Bering Sea species such as the Steller sea lion.

Harbor Seal: Harbor seals are the prominent nearshore seal. Known areas of harbor seal haulout concentrations include the Barren Islands; the west shoreline of Shuyak Island; protected bays on the north and west shores of Afognak Island; bays and rocky promontories in Alitak Bay; the Trinity Islands; Chirikof Island and the Semidi Islands; Wide Bay; Puale Bay; Kukak Bay; and the Kiukpalik Islands. Despite the fact that harbor seals do not generally congregate in dense colonies, more than 125 sites that contain

high density seal populations have been identified around the Borough. Outstanding among these sites is Tugidak Island, historically one of the largest pupping season concentrations in the world. Between the mid-70s and 1990 the population of harbor seals in the Tugidak Island area declined approximately 90%. In 1996, the mean count of harbor seals within the Kodiak Archipelago was estimated at 4,437. Scientists have not been able to identify the specific cause of the harbor seal population decline at Tugidak, but harbor seal populations have been observed to be in a severe decline throughout nearly all their areas of distribution in Alaska with the exception of Southeast Alaska.

Although not listed as endangered or threatened, the harbor seal could possibly be soon designated as a "depleted species" under the Marine Mammal Protection Act.

Northern Sea Otters (threatened): In November 2000 the US Fish and Wildlife Service published a notice in the Federal Register designating northern sea otters in the Aleutian Islands as candidates for protection under the Endangered Species Act. Because the Aleutians have long been considered a stronghold for the species, their severe decline over the past decade is a cause for concern. Recent data collected by both the Fish & Wildlife Service and the U.S. Geological Survey show that the sea otter population in the Aleutians has declined by 70% in the past 8 years. As few as 6,000 otters may remain in the entire Aleutian chain, down from a 1980s population estimate of between 50,000 and 100,000 animals. Biologists speculate that the cause of the decline may be due to increased predation by killer whales.

Cultural/Historic Sites

Character of Cultural Properties: People have lived in the Kodiak Archipelago for more than 7,500 years. The first islanders were Native Alaskans - the ancestors of the contemporary Alutiiq people. Well equipped for life in a maritime environment, they settled Kodiak's coast to harvest the wealth of local marine mammals and birds, fish and shellfish. In the late 18th century, the resources that had sustained the Alutiiq for millennia began attracting a diversity of colonists. Russian fur traders came to the region to harvest sea otters, and they were followed by a succession of American, Scandinavian and Asian entrepreneurs who contributed to the development of the modern fishing and canning industries, and participated in the military build up that accompanied the World War II era.

Evidence of this long cultural heritage is preserved in an abundance of cultural properties; archaeological sites and historic buildings. The Alaska Heritage Resources Survey (AHRS), the state maintained compendium of archaeological sites - records more than 1,000 sites for the region. This represents roughly 4% of all of Alaska's cultural properties in an area that covers less than 0.5% of the state's total land mass. This wealth of known sites reflects Kodiak's climate, high population densities and the region's history of archaeological research. Large prehistoric populations produced numerous sites that have resisted decay in the region's cool, wet environment and a number of these sites have been documented by scientists. Importantly, these sites represent only a portion of the past settlements preserved on the landscape. Each year archaeologists add to the regional site inventory as unsurveyed areas are investigated and as sites are uncovered by erosion and development.

The sites of the Kodiak region represent a diversity of activities. Prehistoric deposits include ancient coastal villages, stream-side camps, burial caves, stone fishing weirs, petroglyphs pecked into cliff faces, ridge-top cairns, stone quarries, and ancient trails. In addition to the stone tools commonly found in prehistoric settlements, many of Kodiak's sites also contain shell, bone, antler, and ivory objects. A rare few hold spectacular assemblages of wood and fiber artifacts. Many are also rich with architectural features, including house foundations, tent rings, hearths, clay-lined storage pits, slate boxes, and burials. This well preserved record documents thousands of years of continuous settlement and chronicles the adaptation of Native societies to the region's productive marine environment.

Historic sites also provide an invaluable view of the past. From the Russian Orthodox churches found in Kodiak communities to the remains of sea otter hunting artels and historic cemeteries, nineteenth century salmon hatcheries and cannery buildings, and World War II era concrete bunkers, there is a wealth of material evidence documenting the intensive, multi-cultural forces that combined to create modern Kodiak. These sites occur both as archaeological deposits (e.g. buried deposits, building foundations, etc.) as well as contemporary features in the Kodiak community (e.g. standing structures, maintained cemeteries, etc.).

This extensive archaeological record holds extremely valuable information about Kodiak's human history, particularly the period preceding European colonization for which there are no written records. Each site contains a unique piece of the archipelago's cultural history that is not preserved in any other place. Unfortunately, many of these sites continue to be damaged by natural and human forces. Erosion, site vandalism, and land development are the most common sources of disturbance. Erosion is a particularly wide spread problem. Winter storms, meandering rivers, and earthquakes remodel Kodiak's shoreline, causing coastal sites to slough into the ocean. Although illegal, recreational digging and artifact collecting have long been popular activities and continue to contribute to the destruction of sites. By removing objects from sites and disturbing their layers, vandals substantially decrease the information that scientists can recover.

Oil spills are another potential source of site damage, through the direct deposition of oil, or through secondary oil transport by winds, storm tides, ground water migration, and the movement of birds and animals. One major injury caused by oil contamination is the inability to radiocarbon date contaminated materials. Additionally, increased access to remote coastal areas by clean up crews can increase knowledge of site locations and accelerate site vandalism.

National Register of Historic Places Sites in the Kodiak Archipelago: Seven of the roughly 1,000 sites listed on the AHRS for the Kodiak Archipelago are also listed on the National Register of Historic Places - the federal compendium of cultural significant properties. These sites, which largely reflect Kodiak's historic era, are summarized below. It is important to note that a very large proportion of the remaining sites listed on the AHRS may also be eligible for inclusion in the National Register. While the seven sites described are clearly important to Kodiak's history, they represent a tiny fraction of the region's significant cultural resources. They are simply those that have been

through the lengthy nomination process. Other sites will undoubtedly be added to the list.

The Russian Kiln Site (049-KOD-207: Located on Long Island off the east shore of Kodiak Island, this is one of the few historic sites associated with brick making, which was a subsidiary industry of the Russian American Company. The 3000 to 6000 bricks that were produced annually were used as ballast in the company's ships, in the construction of stoves to heat employee quarters, and in bathhouses. This site is considered to be significant for its contribution to the industrial history of Alaska. Subsistence caused by the 1964 earthquake has contributed to site erosion, scattering brick debris along the shore below the site.

The Erskine House (049-KOD-123): The Erskine House is located on Marine Way in downtown Kodiak. This building is the only standing structure in Kodiak associated with the Russian American Company and the Alaska Commercial Company, the two commercial enterprises that were controlling factors in the early administration of Alaska. Local tradition indicates the building was erected by Alexander Baranof about 1792-3 as an office and fur warehouse. The building was constructed in a typical Russian-American style with rough-hewn square logs and a hipped roof. Numerous alterations have been made to the building, which is now being used as the Kodiak Historical Society's Baranov Museum.

Fort Abercrombie State Historic Site (049-KOD-137): Situated approximately five miles north of the City of Kodiak, the remains of this World War II era fort are representative of North Pacific coast defense installations. The site is strategically located atop a high headland, and commands a view of the surrounding straits and bays. Dense stands of mature Sitka spruce provide a natural camouflage for the fort. The area was withdrawn as a military reservation in 1941 but remained operational until 1945. The fort was named in honor of Lieutenant William H. Abercrombie, a noted Alaskan explorer of the late nineteenth century. Although Fort Abercrombie was never engaged in battle, its ruins are remnants of a time when foreign invasion was anticipated on American soil. The remains of the fort include concrete beds for gun emplacements, fragments of exploded armaments, cavernous magazines, and building foundations. The site is presently open to the public primarily for day-use activities.

The Three Saints Site (049-KOD-124): Located on the southeastern shore of Kodiak Island on the western shore of Three Saints Bay, this multi-component site contains a prehistoric occupation dating from 0-900 A.D., followed by a historic occupation beginning in the 1700s. Excavation and analysis of the prehistoric site provided the basis for the definition of the Three Saints Bay Phase of the Kachemak Bay Tradition - a prehistoric era dating from roughly 2,400 to 800 years ago. Investigation of the historic component illustrates the site's connection to the Russian era. In 1784 the first Russian colony in America was established at Three Saints Bay and for eight years the colony served as the headquarters of the Shelikhov-Golikof Fur Company. The colony consisted of numerous log buildings including dwellings, bunkhouses, warehouses, commissary, barns, storage buildings, smithy, carpentry shop, and ropewalk. All of the buildings were destroyed as the result of subsistence resulting from earthquakes, and there are no surface remains today.

Holy Resurrection Orthodox Church (049-KOD-195): This 50 year-old church is the most distinguished architectural feature of the Kodiak skyline. The frame building, is laid out on an apsidal-transect plan and covered with white shingles. All the windows are center pointed. A single extended church tower at the front is capped with the traditional Orthodox onion dome, painted blue. A second onion dome and supporting hexagonal tower surmount the medium gable trasept roof. A detached bell tower and several graves marked with marble monuments are also on the site.

A church built between 1843 and 1867 originally occupied the site until it was destroyed by fire in 1943. The existing structure was erected in 1945. Only the detached bell tower is believed to have survived from the earlier church. Icons and religious objects, some dating from the early nineteenth century, adorn the interior. One icon, that of the Holy Resurrection (date 1793), was brought by Saint Herman (then Monk Herman) from Russia with the original party of Orthodox missionaries in 1794. The church is still used for Orthodox services.

American Cemetery (049-KOD-132): Other than the surroundings and the settling and shifting of pits, mounds, markers, and headstones; the expected attrition of age, the American Cemetery physically appeared much as it did when abandoned in 1940 for fifty years. The cemetery originated as a military cemetery to serve Fort Kodiak. This fort and military post was established with the American occupation of Alaska (Russian America) immediately after the purchase of the Territory.

Five of the soldiers from the original fort are known to be buried there. Their names are listed in the National Archives, Old Military Records. In addition to these men, there exist two graves of Unknown Soldiers, and many local residents from 1868 to 1940, including G. G. Holt, the first white man to cross Chilkoot Pass.

The Cemetery continued to be used by the Village and then the City of Kodiak until 1940. In 1990, the Alaska Societies of the Daughters of the American Colonists and the Daughters of the American Revolution renovated the site.

Middle Bay Brick Kiln (049-KOD-011): This site, located on the southeastern shoreline of Middle Bay, holds the remains of a colonial Russian brick kiln. Test excavations uncovered a portion of a brick platform, remnants of two brick walls, and a small standing brick arch. The site has been affected by erosion, and by recreational brick collecting.

The standing arch may have been one of a number of features constructed to (a) support the kiln floor and (b) house the kiln fires. Kilns similar to this one continue to be used in the Near East. Brick kilns having arches for firing purposes were certainly being used in seventeenth century England. Such kilns allowed the hot air to circulate upward among the green bricks stacked within the kiln, the bricks being “baked” or “fired” in the process. While the documentary search did not uncover any references to Russian kilns, it is quite possible that brick firing techniques used in Western Europe would have been used in European Russia, and subsequently Russian America, as well.

The structural remains uncovered at the KOD-011 represent an important subsidiary industry of Russian America. These features currently suggest that the site may have been the location of a type of kiln in general use for thousands of years, a type that

might have been feasible for use by Russian colonists in America. The KOD-011 site has enormous potential for increasing our understanding of Russian colonial brick making operations in the Western Hemisphere.

Marine Archaeology: In addition to the archaeological sites on land, the continental shelf surrounding Kodiak also has the potential to hold important underwater sites. Eustatic sea-level changes since deglaciation have caused the region's coastline to vary dramatically. At the lower sea levels early residents may have occupied lands that are presently submerged, leaving valuable archaeological evidence on the sea floor. Additionally, the region may contain shipwrecks of historic importance.

Note: Cultural/Historic Site portion of this document contributed by Dr. Sven Haakenson, Jr. and Amy Steffian, Alutiiq Museum and Archaeological Repository, Kodiak.

Political Geography

Kodiak was incorporated as a first class city in 1940. It is a home-rule city with a city manager/council form of government. There are six members on the city council, plus the mayor. There are eight departments in the municipality. They include: public works, finance, city engineering, parks & recreation, library, fire department, police department, and cargo dock/boat harbor. The Kodiak Island Borough was incorporated on September 24, 1963 as a second class borough with an elected Mayor and Assembly/ Manager form of government. Since that time the borough has been ruled by either a Mayor form of government or more recently a Manager form of government. By Alaska State Statute, the Kodiak Island Borough is responsible for four area-wide powers encompassing all of the Kodiak Island Borough: 1) Planning and Zoning, 2) Assessment and Taxation, 3) Education, and 4) Health. Non-areawide powers held by the Borough outside the Kodiak city limits are: 1) Solid Waste Collection and Disposal, 2) Animal Control, 3) Parks and Recreation, 4) Economic Development, and 5) Special Service Districts for Roads, Water, Sewer, and Fire Protection. The KIB has 15 recreational facilities spread over 223 acres, and a boat launch located at Anton Larsen. The City of Kodiak and the Kodiak Island Borough provide joint animal control and facilities, and building inspection services. Real and property taxes are administered through the Kodiak Island Borough.

The presence of the State of Alaska in Kodiak is primarily in the form of the Department of Fish and Game. Their role is to manage and regulate the fisheries in the region. Other State agencies in Kodiak are: Health and Social Services, Employment Center, Legislative Information, District Attorney, Public Defender, Vocational Rehabilitation, Department of Corrections, Adult Probation & Parole, Environmental Conservation, Alaska State Court System, National Guard, SW District Parks Division, Department of Transportation & Public Facilities, University of Alaska, Anchorage/Kodiak College, and the University of Alaska, Fairbanks (UAF) School of Fisheries and the Ocean Sciences, Fishery Industrial Technology Center.

The federal agencies with the largest exposure in Kodiak are the Coast Guard and the National Oceanic and Atmospheric Administration (NOAA). NOAA divisions include the National Weather Service, National Ocean Survey, and National Marine Fisheries

Service. The agency also performs duties related to the maritime environment, such as coastal zone management and marine mammal protection. Also located in Kodiak, but with a more limited presence, are the Federal Aviation Administration (FAA), the United States Forest Service, and the United States Postal Service.

The Native organizations that serve the Kodiak Island region are the Kodiak Area Native Association (KANA), Koniag, Inc., Natives of Kodiak, Inc., Leisnoi, Inc., Afognak Native Corporation, Ouzinkie Native Corporation, Akhiok-Kaguyak, Inc., and Old Harbor Native Corporation. KANA, a non-profit organization that was formed in 1966, provides direct social services such as health promotion, advocacy, community development planning, education, and manpower to Natives in its coverage area through grants primarily from the state and federal governments.

Koniag, Inc. is the Regional Corporation formed after the passage of the Alaska Native Claims Settlement Act (ANCSA). Koniag's primary purpose is to manage the assets received pursuant to ANCSA.

Ouzinkie was incorporated as a second class city in 1967. The seven members of the Ouzinkie City Council are elected to three-year staggered terms. The Mayor is elected from, and by, the City Council to a one-year term. Key city positions include the Mayor, City Clerk, and Utilities Clerk. The seven-member Ouzinkie Tribal Council meets on the third Wednesday of each month. The Council serves as the tribal government and addresses issues concerning Alaska Native members of the community. Approximately 225 people live in Ouzinkie.

The City of Port Lions is a second class city within the Kodiak Island Borough and was incorporated in 1966. The seven-member City Council is elected to staggered, three-year terms of office. The mayor is elected to a one-year term from, and by, the City Council. The seven-member Port Lions Tribal Council is recognized by the Bureau of Indian Affairs (BIA) as the tribal governing body of the Alaska Native members of Port Lions. The Tribal Council manages a variety of federal programs for Alaska Natives including health, education, social services, and tribal operations.

Larsen Bay incorporated as a second class city in 1974. The seven members of the Larsen Bay City Council are elected to three-year staggered terms. The mayor is a member of the City Council, and is elected by the membership of the City Council to a one-year term. The seven-member Larsen Bay Tribal Council serves as the tribal government for Alaska Native residents of Larsen Bay. Issues of concern to the tribal government include health care, social services, and tribal operations.

Karluk is an unincorporated village within the Kodiak Island Borough. The village is governed by a seven-member Indian Reorganization Act (IRA) tribal council. Council members are elected to three-year staggered terms. Key positions within the IRA Council are the Village Clerk and Water/Sewer Operator.

The City of Akhiok was incorporated in 1974 and is a second class city within the Kodiak Island Borough system. Akhiok has a seven-member city council from which the mayor and other officers are selected. The Tribal Council is recognized by the Bureau of Indian Affairs as the official tribal governing body of the community of Akhiok, and is eligible to administer a variety of federal programs, including local health care,

employment assistance and other social services. The Tribal Council assigns its federal contracting authority to the Kodiak Area Native Association (KANA) by resolution. KANA in turn, administers the programs and provides the services. Tribal Council members are elected according to an adopted constitution and bylaws. Elections are held at the same time as local municipal elections.

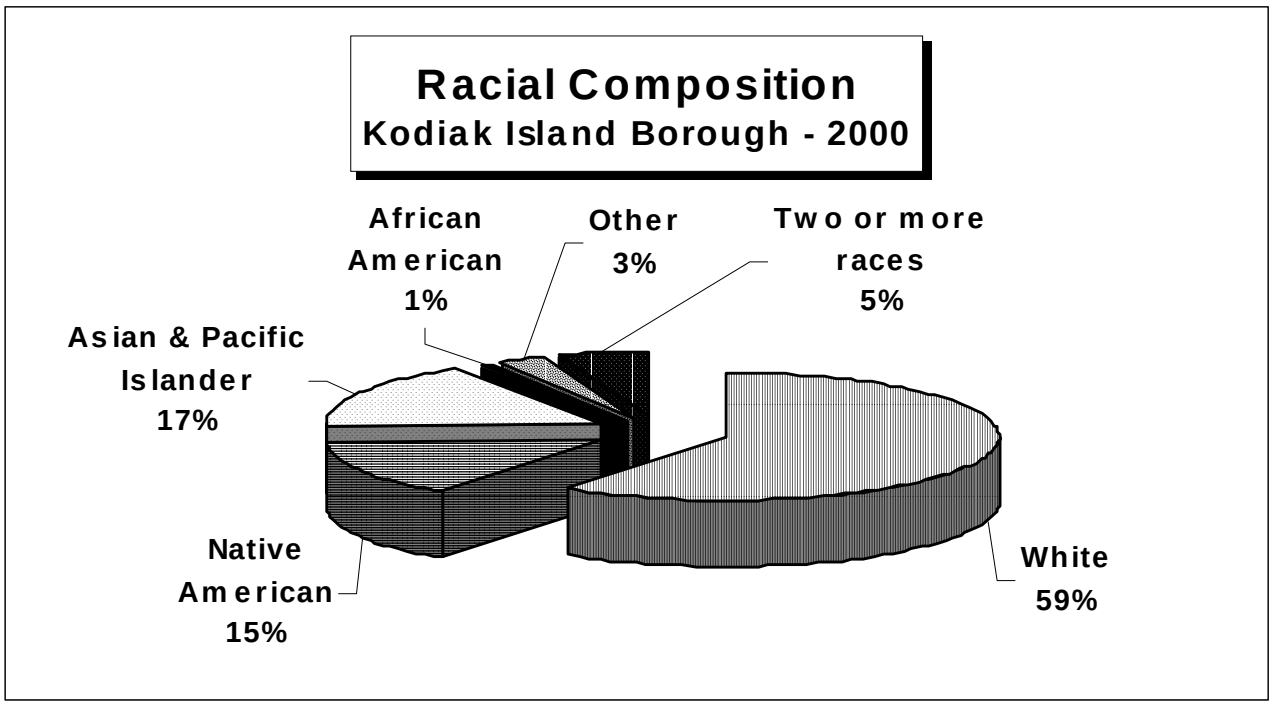
Old Harbor was incorporated as a second class city in 1966. The seven City Council members are elected to three-year staggered terms. The mayor is elected from, and by, the membership of the Council. The seven-member Tribal Council provides public safety and pre-school programs in Old Harbor, in addition to addressing issues of concern to the Alaska Native residents of the community.

Population and Labor Force

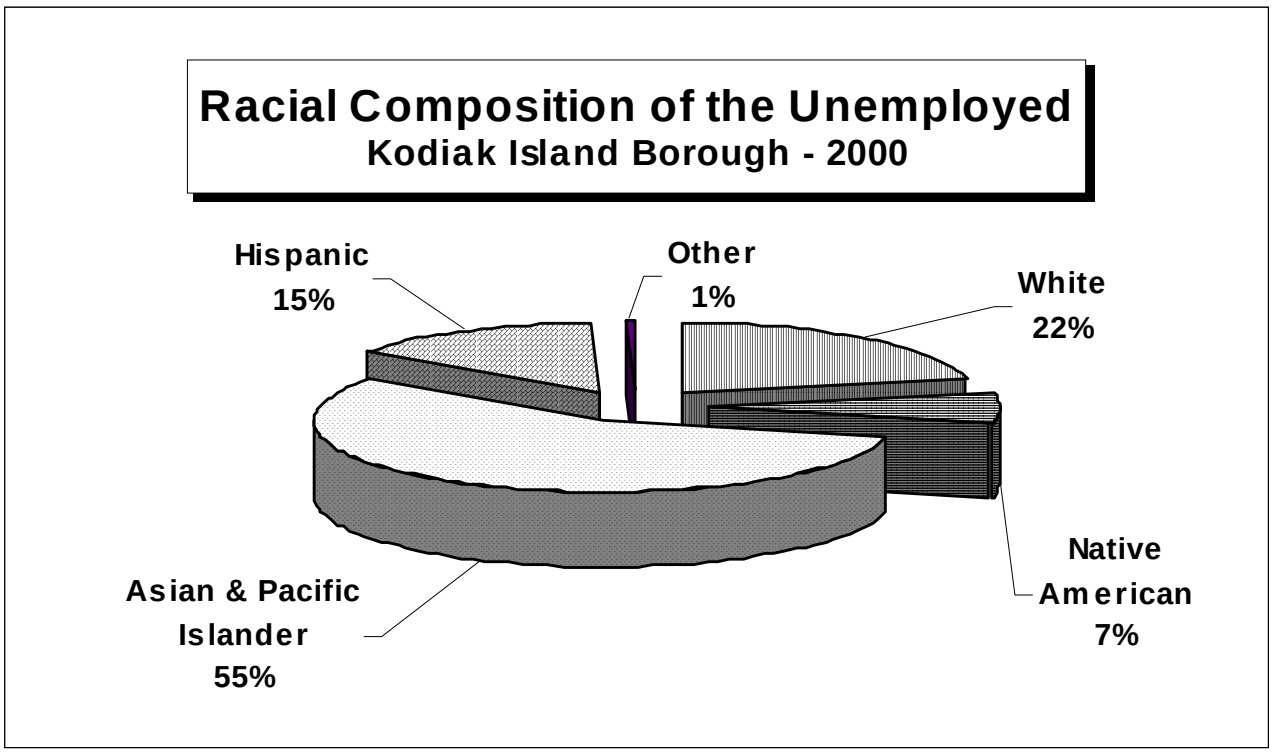
The population of Kodiak Island Borough is 13,913. This represents an increase of 40% since 1980. The median age of Kodiak's population is 32 years. Males comprise 54% of the population and females 46%. Some 21.5% of adults 25 years of age and older hold a Bachelor's Degree or higher; 84.7% of adults 25 and older have a high school diploma or higher. The median family income is $47,600. The per capita income is $25,204. The size of Kodiak Island Borough's non-agricultural labor force is 6,995. The average annual unemployment rate in 2000 was 8.8%.

Characteristics of the Unemployed - 2000

	Number	Percent
Sex:		
Male	983	60.0%
Female	654	40.0%
Total	1,637	100%
Age:		
Less than 21	32	2.0%
21-24	112	6.8%
25-34	380	23.2%
35-44	483	29.5%
45-54	392	23.9%
55-64	167	10.2%
65+	71	4.3%
Number of Dependents:		
0	780	47.6%
1	268	16.4%
2	301	18.4%
3+	288	17.6%
Ethnic Background:		
Alaska Native/Am. Indian	115	7.0%
Asian & Pacific Islander	909	55.5%
Black	3	0.2%
Hispanic	236	14.4%
White	357	21.8%
No Information	7	0.%
Other	10	0.6%
Occupation:		
Agri., Fishing, & Forestry	31	1.9%
Benchwork	1	0.1%
Clerical and Sales	107	6.5%
Machine Trades	8	0.5%
Seafood Processing	1,115	68.1%
Prof., Tech., & Managerial	70	4.3%
Service	66	4.0%
Structural Work	160	9.8%
Miscellaneous & Unknown	79	4.8%



Source: Alaska Department of Labor



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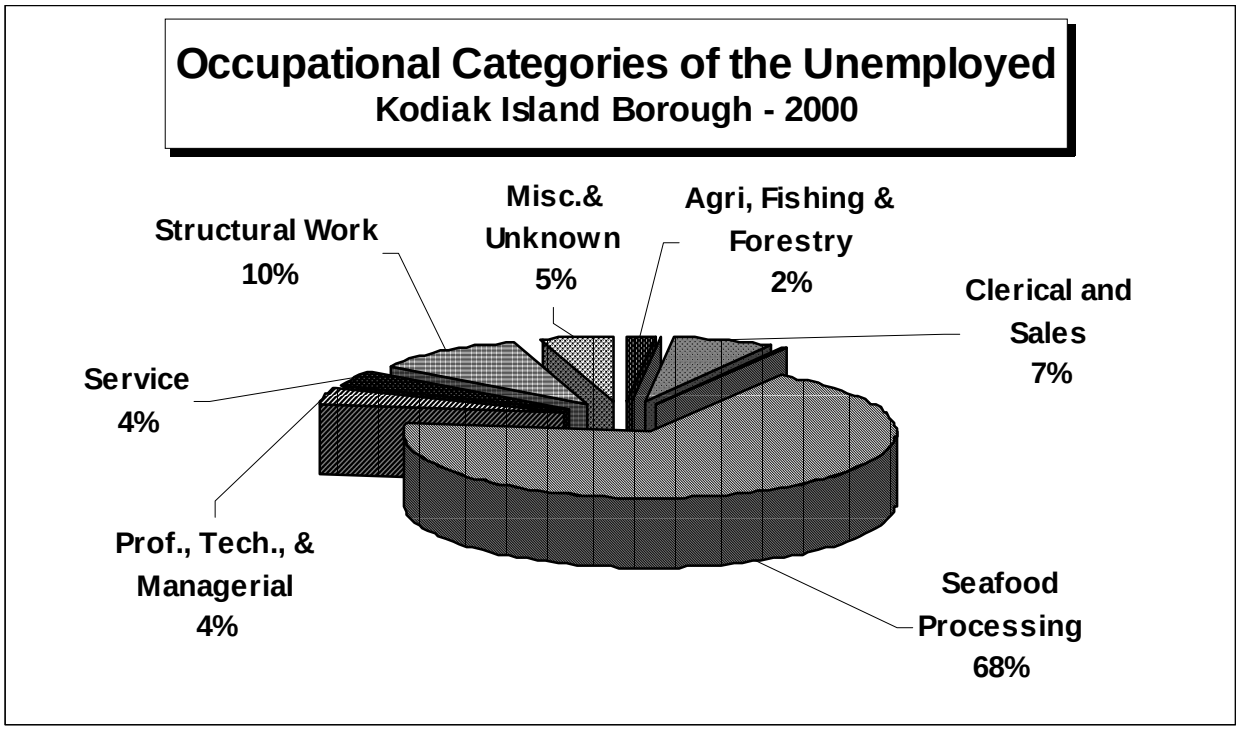
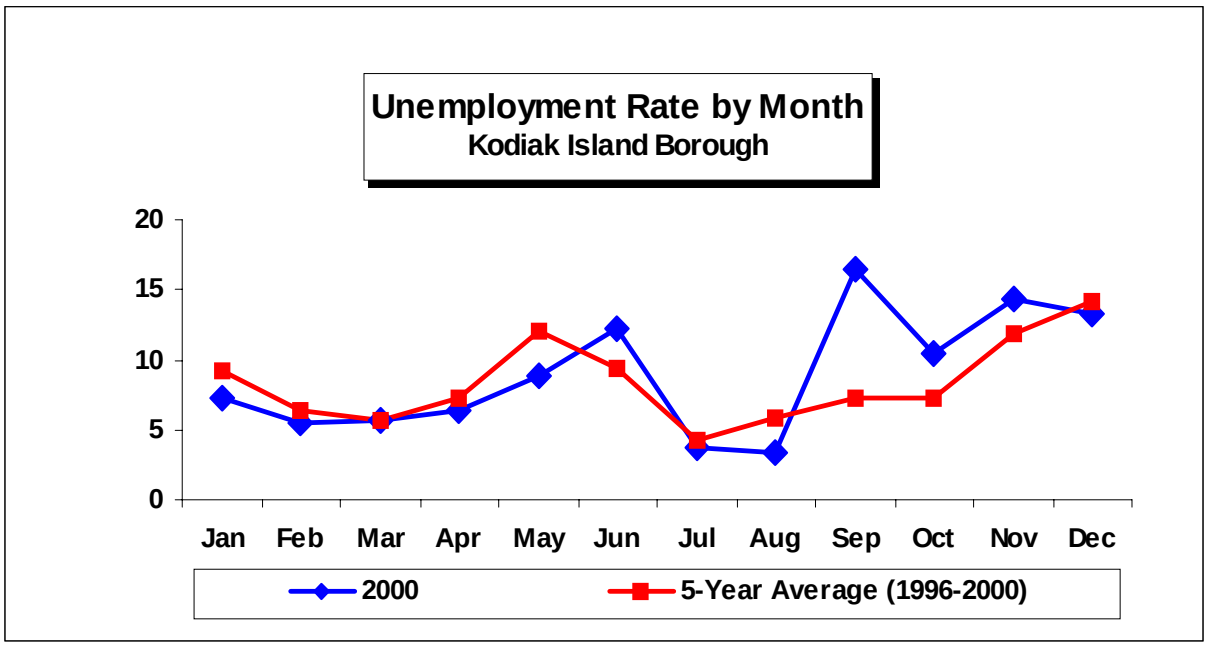


Source: Alaska Department of Labor

The average annual unemployment rate in the Kodiak Island Borough for 2000 was 8.8 percent, decreasing 1.9 percent from the 1992 unemployment rate of 10.7 percent. Because of seasonal fluctuations in the fishing industry, this rate changes dramatically throughout the year. For example, the unemployment rate dropped from 12.3% in June to 3.7% in July, 2000. In 2000, the unemployment rate was highest in September, exceeding 16 percent, and lowest in August at just over 3 percent.



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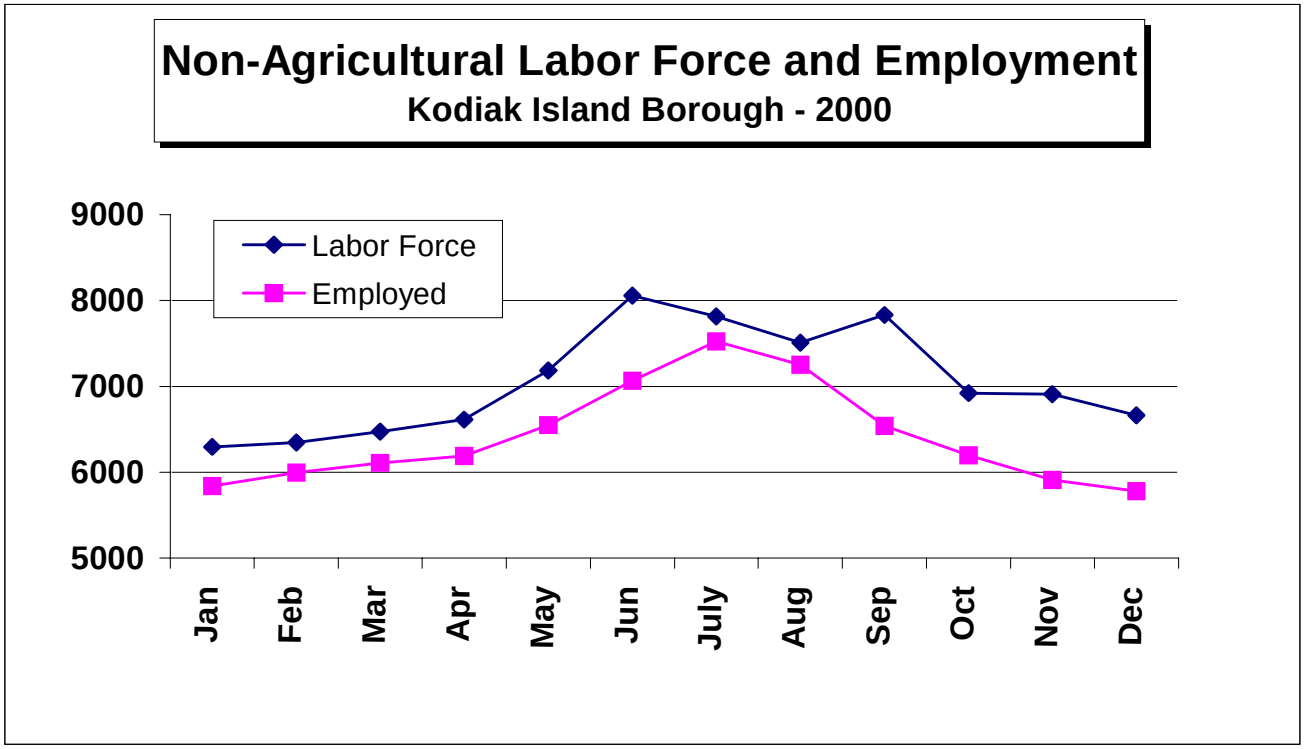

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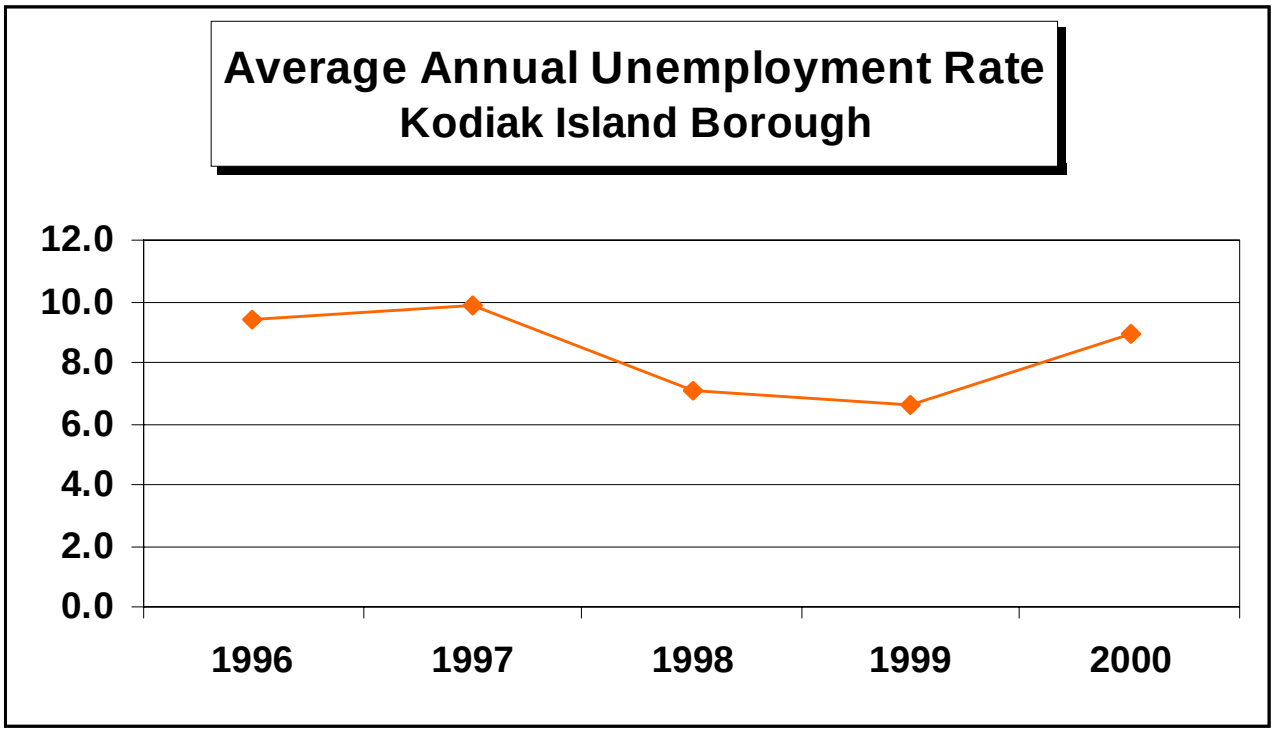


Source: Alaska Department of Labor

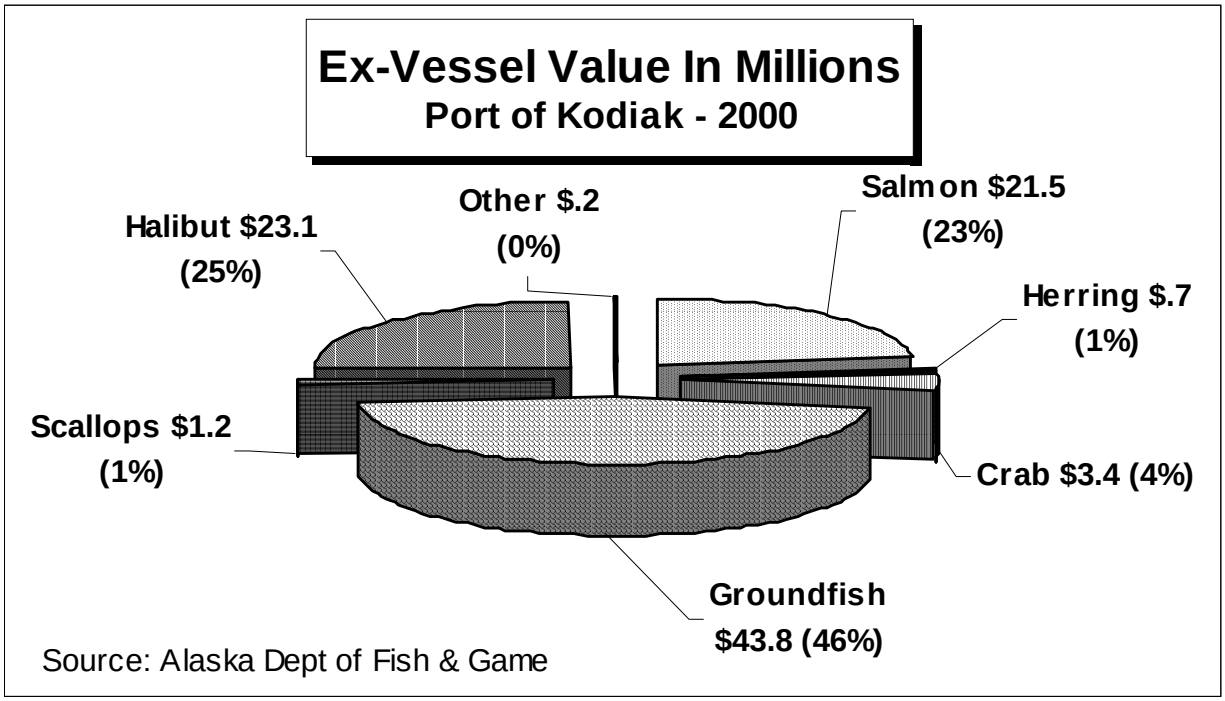
Economy

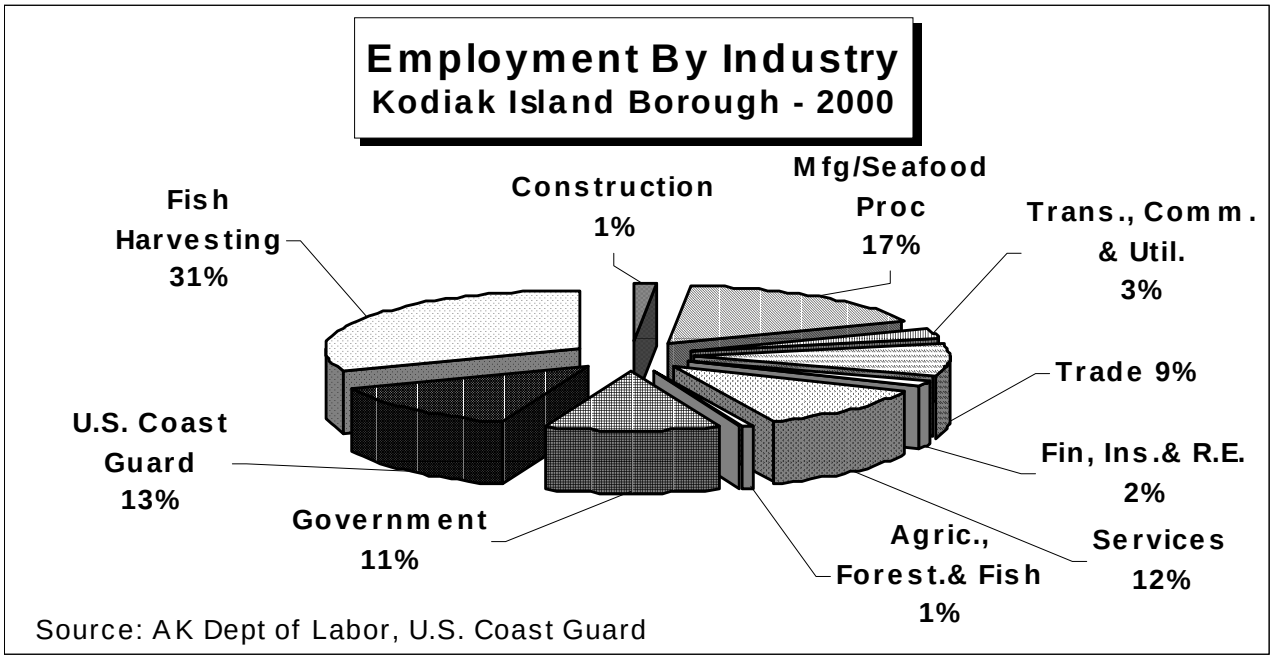
Commercial fishing has long been the primary economic activity of Kodiak. In 2000, a total of 924 commercial fishing permits were fished by area residents (the number of permits fished may not be equal to the number of permits held, which can be much higher). It is estimated that the total number of persons employed in the fish harvesting sector is 3,200. Another 1,678 persons are employed by the shore-based seafood processing industry.

Salmon, groundfish, crab, halibut, and herring are all important to the economy. Salmon has traditionally been the mainstay of Kodiak's fishing fleet, with 61% of the Kodiak limited entry salmon permits owned by local residents (11% of these reside in the outlying villages of Old Harbor, Ouzinkie, Port Lions, Larsen Bay, and Akhiok). From 1977 to 1985, salmon ranked first among the major fisheries in both average value and weight landed.

The harvesting sector of the Kodiak commercial fisheries industry was extensively transformed between 1975 and 1984. The value of the Kodiak fisheries increased from 1975 to 1981 as a result of crab prices but declined as stocks fell. Fisherman responded by diversifying into tanner crab, halibut, sablefish, and groundfish. Groundfish are becoming one of Kodiak's most valuable fisheries, therefore firms have diversified by producing quality groundfish products.

Commercial fishing provides revenue to the Kodiak Island Borough through a severance tax. The fish tax revenues collected during the borough's fiscal years 1999 and 2000 were $918,010 and $791,487, respectively.





Those sectors of the Kodiak economy not directly engaged in the fishing/processing industries consist largely of support services for the fishing industry, or of enterprises that support the people who engage in fishing activities or its support. Other large sectors of the Kodiak economy are government and the U.S. Coast Guard, providing a combined 23.1% of the employment opportunity in the borough.

Kodiak Employment by Industry, 1990 - 2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Industries†	5,742	5,711	5,318	5,320	5,811	6,090	6,308	6,193	5,737	5,701	5,702
Mining	*	*	*	*	*	-	-	-	-	-	-
Construction	158	161	164	142	154	186	158	139	154	127	138
Manufacturing	2,062	2,091	1,810	1,885	2,260	2,350	2,584	2,509	1,968	1,771	1,774
Processing	1,923	1,961	1,631	1,733	2,092	2,138	2,369	2,299	1,875	1,653	1,678
Trans., Comm., & Util.	319	320	339	323	301	343	303	299	297	279	266
Trade	921	931	851	828	841	960	883	842	840	999	928
Wholesale	36	41	45	68	72	91	68	69	69	50	51
Retail	886	890	806	759	769	870	815	773	771	949	877
Finance, Ins., R.E.	111	112	136	135	148	141	145	155	162	162	179
Services	1,018	955	828	823	890	928	999	1,027	1,125	1,160	1,185
Agri., Forest.& Fish.	30	21	52	62	99	85	95	70	69	80	86
Government	1,120	1,116	1,120	1,115	1,113	1,092	1,140	1,150	1,121	1,120	1,145
Federal	162	165	174	171	166	162	158	172	170	182	208
State	285	275	277	263	252	248	251	252	242	226	225
Local	673	677	669	681	695	682	731	726	709	712	712
U.S. Coast Guard[1]											1,380
Fish Harvesting[2]											3,200

Source: Alaska Department of Labor, Research & Analysis

* Nondisclosable

[1] Source: U.S. Coast Guard (U.S. Coast Guard employment for 2000 is 1380 persons)

[2] Source: Impact Assessment Inc. (Based on commercial fisheries permits and applicable crew factors)

† Excludes U.S. Coast Guard employment and fish harvesting employment

Infrastructure and Services

City of Kodiak

Housing: According to the Kodiak Island Borough Population and Housing Analysis, there are an estimated 4,489 housing units in the Kodiak urban area (including mobile homes and Coast Guard base housing). The average number of persons per household is estimated to be 3.04.

Marine Facilities:
The City of Kodiak provides public dock facilities. Municipal marine facilities include:

Pier I/Ferry Dock: 204' x 28'
Use: mooring, loading, and unloading.
Services: water, bulk fuel

Pier II/City Dock: 860' x 64'
Harbor depth in excess of 30' and tides range approximately 10'.
Use: loading/unloading of commercial freight.
Services: bulk fuel, water, covered warehouse, 20 & 90 cranes and forklifts.

Pier III/Container Terminal:490' x 64' (880' Bollard to Bollard).
Use: container services for general cargo.
Services: water, 30 ton Gantry crane.

Small vessel moorage includes two small boat harbors with 600 stalls (maximum vessel length is 120') and mooring buoys in St. Paul and St. Herman Harbors. Ship & boat repair services are available through local boatyards that can accommodate vessels up to 150 tons. Outdoor dry storage is also available.

Water and Sewer: The City of Kodiak is the supplier of water and sewer services in the city and to Kodiak Island Borough Service District 1, providing water and sewer service to 920 units adjacent to the city. Outlying residents rely on private wells and septic systems. The water source is the Monashka Reservoir. The water rate for commercial users is based on metered usage; for residential users the rate is $25.30 per month (inside city limits) and $30.35 for residential users outside the city limits. The sewer rate for commercial users is $32.20/month/unit and the residential rate is $32.50 per month (inside city limits) and $38.60 for residential users outside the city limits. Total sewer capacity is 4.7 million gallons per day.

Fuel Distribution: Home and business heating fuel deliveries are made by Thompson Transfer and Kodiak Oil Sales. Marine fuels are available from Petro Marine and North Pacific Fuel. Aviation fuel is available from Petro Marine. Bulk sales of automobile fuels are made by Petro Marine and North Pacific Fuel.

Health Care: Providence Kodiak Island Medical Center is owned by the Kodiak Island Borough and operated under a lease-management agreement by Providence Health System of Alaska. The borough recently completed a major renovation and expansion of the hospital. In 1999, the Providence Kodiak Island Medical Center achieved accreditation from the Joint Commission on Accreditation of Healthcare Organizations (JACHO). Community health care providers include physicians, chiropractors, dentists,

optometrists, pharmacists, registered nurses, public health care nurses, physician assistants, respiratory, speech and physical therapists. The Kodiak Area Native Association contracts with the Alaska Area Native Health Service and Indian Health Service to provide health care services to Native Americans in Kodiak and outlying villages.

Education: The Kodiak Island Borough School District had a 2000-01 student enrollment of 2,750 in grades K-12. There are 2,544 students in schools on the road system, and 206 students in village schools. The district has schools in the villages including: Port Lions, Ouzinkie, Larsen Bay, Karluk, Akhiok, Chiniak, and Old Harbor. Also, there is a one-room school located at Danger Bay on Afognak Island logging campsite. In and near the City of Kodiak there are four elementary, one junior high, and one senior high school. The Elementary Schools serve grades K-6; Junior High, grades 7-8; and High School, grades 9-12.

Kodiak College: The local campus of the University of Alaska, Anchorage, includes general classrooms, a vocational building and a Campus Center which houses learning labs in computers, math, English and Adult Basic Education. Students may earn two-year degrees including Associate of Arts degree and Associate of Applied Science degrees in General Business, Office Management and Technology, Nursing, and Technology. A 30-credit certificate program is available in Office Management and Technology. Kodiak College also supports University of Alaska distance education programs. Approximately 35 full-time students and 1,000 part-time students attend Kodiak College each semester.

Public Safety/Fire Protection: The City of Kodiak and Alaska State Troopers provide police protection for the island residents. Fire protection is provided by the City of Kodiak, Bayside Fire Department, and Women's Bay Fire Department. The Coast Guard Support Center provides fire protection for Support Center facilities and the State Airport, which is located on Coast Guard Property. The City fire-fighters are also certified Emergency Medical Technicians.

Transportation: Trucking services are provided by Alaska Transfer and Storage, Sea-Land Service, Kodiak Transfer, and Southern Alaska Forwarding. Cargo Carriers are CSX Lines, American President Lines, Western Pioneer Shipping Services and Samson Tug & Barge. The Alaska State Ferry, M/V Tustumena, connects the City of Kodiak with Port Lions, communities along the Aleutian chain and communities on the Kenai Peninsula.

Communications: Alaska Communication Systems (ACS) provides communications equipment and services to homes and businesses in the community. Long distance service for the area is provided by AT&T Alascom and General Communications, Inc. (GCI). Dial-up Internet service is provided by AT&T Alascom, GCI, Kodiak Electric Association (KEA) and ACS.

Electric Service: Services are provided by the Kodiak Electric Association, a member-owned co-op. Rates are as follows:

Residential User—
Customer charge $7.50

All KWH 0.1380

Commercial User—
Customer charge $15.00
First 300 KWH 0.1498
Over 300 KWH.....0.1285

Large Power User—
Customer charge $50.00
Demand charge $5.67/KW
First 20,000 KWH 0.127
Over 20,000 KWH.....0.1138

Seafood Processor Rate—
Customer charge $50.00
All KWH 0.1323

Karluk

Housing: There are 11 housing units in Karluk.

Marine Facilities: There are no marine facilities in Karluk. A community dock is being planned.

Electric Service: The Alutiiq Power and Fuel Company operates a 50-kilowatt (KW) generator. Rates for both commercial and residential customers are $0.60 per kilowatt-hour (KWH). The electric company participates in the State of Alaska Power Cost Equalization program.

Water: Water to all residences is supplied by a nearby mountain stream. The community has 50,000 gallons of water storage capacity, resulting in an adequate supply at all times. There is no charge for water service.

Sewage: Residential and commercial consumers are charged $5 per month. The entire community is served by the system.

Solid Waste Disposal: There is no refuse collection service available in Karluk. Karluk residents have free use of the Karluk landfill. The school organizes aluminum can recycling drives.

Public Safety/Fire Protection: Public safety and fire protection services are provided by the Alaska State Troopers.

Fuel Distribution: The Alutiiq Power and Fuel Company distributes fuel to residents. Deliveries are received in the village two to three times a year depending on demand. Diesel fuel storage is 50,000 gallons. Gasoline is shipped to the village and stored in barrels.

Health Services: The Indian Health Service (IHS)-supported clinic is staffed by a trained Community Health Aide (CHA). Limited medication is available at the clinic. Other

health care providers travel to Karluk every two months. The VPSO and CHA have received EMT training. The closest hospital facility is located in Kodiak.

Education: The Karluk School is part of the Kodiak Island Borough School District. Students in grades K-10 are taught by 1 full-time certified teacher. Pre-school classes are available for three to five-year-olds.

Ouzinkie

Housing: There are 90 housing units in Ouzinkie.

Marine Facilities: The marine facilities include a 470' x 12' dock with mooring buoys and an unloading area on the beach. The charge for marine storage is $7/month and the commercial rate for crane service is $10/hour.

Electric Service: The 400 KVA electric generation system services the entire community with sufficient power available for new businesses. Commercial and residential rates are $.30 per kilowatt-hour. The State of Alaska Power Cost Equalization program subsidizes part of customer's monthly charges for service.

Water/Sewer: The community is supplied with water from Mahoona Lake. The commercial rate for water and sewer is $30/month and the residential rate is $15/mo.; senior citizens are charged $10/month.

Solid Waste Disposal: The City collects garbage for disposal in the 10-acre landfill. The monthly fee is $5.

Public Safety/Fire Protection: The Village Public Safety Officer (VPSO) provides public safety and fire protection services.

Fuel Storage: Fuel is delivered to the 70,000 gallon capacity bulk fuel storage facility three times a year. The Ouzinkie Native Corporation charges $1.72 per gallon for diesel fuel.

Health Services: The one-bed Ouzinkie Clinic is staffed by a Community Health Aide (CHA). Community Health Practitioner (CHP), and a Community Health Representative (CHR). A doctor from the Indian Health Service (IHS) visits Ouzinkie monthly. An IHS dentist treats patients once a year and a State Public Health Nurse travels to the community quarterly. Medication is available through the Kodiak Area Native Association (KANA). There are no lab or x-ray facilities in Ouzinkie. The nearest hospital is in Kodiak. Medical emergencies are handled by the VPSO, CHA, and Coast Guard, with ambulance service available.

Education: The Ouzinkie School is operated by the Kodiak Island Borough. Average enrollment, in grades K-12, is 49 students. Six full-time certified teachers provide instruction, making the student-teacher ratio 9:1. Pre-school programs are offered to three and four-year-olds. Kodiak Community College offers various courses in Ouzinkie throughout the year. The Ouzinkie Native Corporation offers scholarships to shareholders.

Larsen Bay

Housing: There are 35 housing units in Larsen Bay. Three new rental units to be installed by Kodiak Island Housing Authority in the summer of 2001. There are 5 lodges in the community of Larsen Bay and 2 Bed & Breakfasts.

Marine Facilities: The marine facilities are provided by Kodiak Salmon Packers and include a 400-foot dock, marine storage, crane service, and an unloading area on the beach. There are two areas outside of KSP for unloading for landing barges.

Electric Service: Larsen Bay's 475 KW mini hydroelectric facility has ample power available for business development. Hydroelectric power is supplemented by diesel-generated electricity. Residential and commercial customers are charged $.40 per kilowatt hour (KWH). The State of Alaska Power Cost Equalization program subsidizes rates at $.19 per KWH up to 500 hours per month.

Water/Sewer: Water is supplied by a stream near the community. There is a 283,000-gallon water storage capacity. Larsen Bay experiences no periods of water shortfall. Septic tanks hold waste solids and liquid waste flows through an outfall line into the bay. Residential and commercial rates for water and sewer service are $7.50 per month for each utility.

Solid Waste Disposal: The State-permitted landfill is 13,000 square feet in size and the landfill is near capacity. The City of Larsen Bay maintains the landfill and provides weekly garbage pickup service for $15 per month.

Public Safety/Fire Protection: A Village Public Safety Officer (VPSO) provides public safety service to the community and supervises activities of the volunteer fire department.

Fuel Storage: Fuel is delivered to Larsen Bay two to three times a year. The City of Larsen Bay is the local fuel distributor. Fuel storage capacity is 50,000 gallons for diesel and 10,000 gallons for gasoline. Up to 2,000 pounds of propane can be stored. Fuel costs are: diesel $1.75/gal., gasoline $1.85/gal., propane $.65/lb. A new tank farm is scheduled to be constructed in September 2001.

Health Services: The two-bed Indian Health Service (IHS) clinic is staffed by two Community Health Aides (CHA). The clinic has no lab, pharmacy, or x-ray facilities. These services are available at the Kodiak Island Hospital in Kodiak. Other IHS medical personnel visit Larsen Bay one to two times each year. Emergency medical services are provided by the CHA or the U.S. Coast Guard out of Kodiak.

Education: The Larsen Bay School is part of the Kodiak Island Borough School District. Seventeen students in grades K-12 are taught by 2 full-time teachers. Preschool classes are offered for three to five-year-old children. Vocational training is offered by the Kodiak Area Native Association (KANA).

Akhiok

Housing: There are 37 housing units in Akhiok.

Electric Service: The community operates its own electrical system with electricity provided by the City of Akhiok. Electricity is generated by oil. Rates are subsidized through the Power Cost Equalization program.

Water/Sewer: Well water is the primary system source for the community operated water system. Water is filtered and chlorinated before distribution through the central piped water system. A community operated piped sewage collection system is installed. A community septic tank collection and treatment system is used. A sewage pumping truck is available.

Fuel Distribution: Heating fuel (bulk fuel) is available. Known bulk fuel tank farms include: City (8 @ 110,000 gals.); Ward Cove Packing (223,300); Ward Cove Packing/Alitak (238,300).

Education: The Akhiok School is part of the Kodiak Island Borough School District. During the 2000-2001 school year, 14 students were enrolled in grades K-12. The school staff consists of 2 full-time teachers. The combination elementary and high school building was constructed in 1982. This building contains an elementary education room, secondary education room, classroom/library, gymnasium, kitchen, shop and storerooms. The facility is available for community use during selected non-school hours.

Health Services: A new one-story 768 square foot clinic building was constructed in 1986. The facility was occupied in October 1986. A community health aide supplemented by visits from a Kodiak Area Native Association staff physician staffs the clinic.

Solid Waste Disposal: The landfill operated by the City of Akhiok is located east of the town, northeast of the Russian Orthodox Church and on church-owned property. Pickup services are not provided.

Public Safety: A Village Public Safety Officer (VPSO) provides public safety service to the community.

Old Harbor

Housing: There are 99 housing units in Old Harbor.

Marine Facilities: The boat harbor has a 150-foot dock with moorage for 55 boats. The facilities also include a boat haul-out, marine storage and an unloading area on the beach.

Electric Service: The Alaska Village Electric Co-op (AVEC) provides electricity to Old Harbor using a 75 KW generator. Residential and commercial customers are charged $.37 per kilowatt-hour plus a fuel surcharge. The State of Alaska Power Cost Equalization program subsidizes the cost of electricity at $.2687 per kilowatt-hour up to 750 KWH each month. Limited power is available for new business development.

Water/Sewer: Water is supplied by community wells. All residences and facilities are connected to the public water and sewer system. Water storage capacity is 120,000 gallons. Commercial water and sewer rates are $40/month and residential rates are $23.50/month.

Solid Waste Disposal: No fees are charged for the use of the city-operated landfill. Refuse collection service is not available.

Public Safety/Fire Protection: Fire protection services are the responsibility of the City of Old Harbor. A Village Public Safety Officer, under direction of the Old Harbor Tribal Council and Kodiak Area Native Association, provides public safety services.

Fuel Distribution: The Old Harbor Fuel Company distributes fuel in the community. Bulk fuel shipments arrive about five times during a year. Diesel fuel is sold for $2.00 per gallon. Diesel and gasoline storage capacity is 74,000 gallons.

Health Services: The Indian Health Service (IHS)-supported clinic is staffed by a Community Health Aide (CHA). No x-ray, lab, or pharmacy services are available at the clinic. A Kodiak doctor visits Old Harbor monthly. The nearest hospital facility is in Kodiak.

Education: The Old Harbor School is part of the Kodiak Island Borough School District. Sixty-one students in grades K-12 are provided instruction by 7 full-time certified teachers. College courses for credit are offered by the University of Alaska Distance Education program.

Port Lions

Housing: There are 105 housing units in Port Lions.

Marine Facilities: The breakwater-protected boat harbor has moorage facilities sufficient for 50 vessels over 30 feet and 32 vessels under 30 feet. The harbor is also equipped with a 2,000 sq. ft. loading dock with hoist. The city dock has a 16,000 foot surface, 15-acre staging area, 58-acre industrial tract, and a 2,000 sq. ft. warehouse. The Alaska State Ferry, M/V Tustumena, connects Port Lions with the City of Kodiak and communities of the Kenai Peninsula.

Electric Service: Electric power is supplied by the 20-megawatt Terror Lake Hydroelectric facility operated by the Kodiak Electric Association. Ample power is available for new development. Rates are the same as those charged for the City of Kodiak.

Water: A new Water Dam reservoir supplies the community with water. Rates for water service are $20.00 per month for residential consumption, and $32 to $150 per month for commercial.

Sewage: The city provides primary sewage treatment. Residential users are charged $6 each month and commercial rates vary from $18 to $63 per month.

Solid Waste Disposal: The 10,000 cubic-yard landfill is operated by the City of Port Lions. Weekly garbage pickup service is $6 for residential users and $27.50 for commercial users.

Public Safety/Fire Protection: The Village Public Safety Officer (VPSO) provides public safety and fire protection services. The Volunteer Fire Department has a pumper truck for fire fighting.

Fuel Storage: Kizhuyak Oil Sales distributes fuel delivered to the community three times during the year. Fuel storage capacity is: #1 diesel 30,000 gallons, #2 diesel 30,000 gallons, gasoline 30,000 gallons. Fuel delivery and a gas pump are available.

Health Services: The two-bed Port Lions Health Clinic is staffed by a Community Health Practitioner (CHP). The nearest lab, x-ray or pharmacy services are available in Kodiak. A Kodiak doctor visits Port Lions monthly. Trained EMT 1, EMT 2, and ETT personnel are available.

Education: The Port Lions School is part of the Kodiak Island Borough School District. During the 2000-2001 school year, 45 students enrolled in grades K-12. School staff includes 5 full-time certified teachers and one principal. Pre-school classes are offered for children ages three to five. Kodiak College offers various courses for college credit in Port Lions throughout the year.

Kodiak Island Borough Outlying Community Services

	Akhiok	Karluk	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
Population	80	27	115	237	225	256
Air Strip	Yes	Yes	Yes	Yes	Yes	Yes
AK Marine Hwy Service	No	No	No	No	No	Yes
Community Hall	Yes	Yes	Yes	Yes	Yes	Yes
Community Septic	Yes	Yes	Yes	Yes	Yes	Yes
Community Store	No	No	Yes	Yes	Yes	Yes
Electric Service	Yes	Yes	Yes	Yes	Yes	Yes
Library	Yes	Yes	Yes	Yes	Yes	Yes
Medical Clinic	Yes	Yes	Yes	Yes	Yes	Yes
Municipal Boat Harbor	No	No	Yes	Yes	No	Yes
Municipal Water	Yes	Yes	Yes	Yes	Yes	Yes
Public Safety Officer	Yes	Yes	Yes	Yes	Yes	Yes
Scheduled Air Service	Yes	Yes	Yes	Yes	Yes	Yes
School	Yes	Yes	Yes	Yes	Yes	Yes
Seafood Processing	No	No	Yes	No	No	No
Second Class City	Yes	No	Yes	Yes	Yes	Yes
Telephone Service	Yes	Yes	Yes	Yes	Yes	Yes
Tribal Council	Yes	Yes	Yes	Yes	Yes	Yes
U.S. Post Office	No	Yes	Yes	Yes	Yes	Yes
Visitor Lodging	No	Yes	Yes	Yes	No	Yes

Planning and Economic Development Activities

The Kodiak Chamber of Commerce has been contracted by the City of Kodiak and The Kodiak Island Borough to undertake specific economic development activities on an island-wide basis. These activities include: organizing an economic development committee, providing a full-time staff member for the committee, preparation of the area's Comprehensive Economic Development Strategy (CEDS) and the implementation of the action plans and development strategies described therein. Copies of these contracts are included in the Appendix.

EVALUATION

The CEDS Committee has identified several assets and liabilities of the area as they pertain to economic development. These are described below as they apply to specific areas of potential economic development:

Seafood Processing and Harvesting

Assets and Opportunities. Kodiak's strong seafood processing labor force has been identified as one of its biggest assets. Due to the high levels of unemployment in the seafood processing industry during off-season periods, value-added, or secondary, processing of seafood products presents one of Kodiak's biggest opportunities in economic development. Currently, a significant amount of the fish product exported from Kodiak is minimally processed (usually only headed and gutted). Additional value-added seafood processing in Kodiak would provide employment for the existing labor force during otherwise slow periods when large numbers of workers are typically laid off. The implementation of the Individual Fishing Quotas (IFQ's), changed the halibut and black cod fisheries from "derby-style" fisheries in which large volumes of fish are delivered to the shore-based processing plants in very short time periods, to more evenly paced fisheries in which fish product deliveries are spread out over time, giving processing plants more time to add value to the product through secondary processing. Proposed rationalization of the fishing industry in the Gulf of Alaska would ensure coastal communities a steady stream of "fresh" fish over an extended period of time. Small boat fishers would not be disadvantaged due to inclement weather and by-catch would be reduced. Getting fish out in the "fresh" form, rather than fast frozen adds value to the product and may encourage the development of more "custom-processing" facilities.

Several opportunities also exist for economic development in the seafood processing industry by achieving total utilization of fish products, so that every part of the fish is used with nothing discarded. Fish oil extraction and fishmeal production, from previously discarded fish parts are only two examples of this. In addition to increased profits and employment, the opportunity to minimize regulatory constraints on the shore-based processing industry will develop as the volume of discharge is reduced. Similarly, achieving total utilization of by-catch species, currently being thrown overboard, presents another opportunity for economic development.

Harvesting and processing under-utilized species, such as the arrowtooth flounder (one of the most abundant groundfish species available in the waters harvested by Kodiak's fishing fleet) presents additional opportunities for economic growth and job creation in Kodiak.

Kodiak Island is situated in the middle of one of the world's richest fishing grounds. Additionally, there are approximately 800 streams within the Kodiak Management Area (KMA) in which salmon migration or spawning has been documented. Supplemental production of salmon includes two hatcheries located in the KMA. Both hatcheries, Kitoi Bay and Pillar Creek, are operated by the Kodiak Regional Aquaculture Association (KRAA). The combined incubation of these two hatcheries is 263,000,000 eggs. The fish harvesting/production potential for Kodiak is therefore excellent.

Another asset identified by the economic development committee is the Kodiak State Airport. The airport is centrally located in Southwest Alaska and has year-round access to an ice-free port. The Kodiak State Airport has the opportunity to become a trans-shipment point for fresh fish products. As Kodiak State Airport evolves into a regional hub for the Southwest portion of the state, the opportunity for a reduction in shipping and freight rates can be realized. This will serve to benefit all sectors of the economy.

Finally, several opportunities resulting from increased research into fisheries sciences can be realized, such as greater support for the seafood processing sector, increased levels of processing, and subsequently, increased employment in the industry. Increased research into the fisheries encourages greater investment by fisheries-related businesses. This entices more scientists and researchers to use facilities available in Kodiak, like the Fishery Industrial Technology Center and the Kodiak Fisheries Research Facility, as a base for study. Kodiak has become a national fisheries "research hub" with research being conducted in shellfish, groundfish, sustainable fisheries, domestic observer program, marine mammals, fisheries management, sport fishing, and wildlife conservation.

Liabilities and Constraints. Several liabilities will have to be overcome for value-added seafood processing to develop to its full potential in Kodiak. First, the traditional distribution patterns of headed and gutted fish product to Puget Sound and Japan will be hard to break. Secondly, a lack of a cold storage facility means there is no place to store fish products until there is time to add value to them. One of the biggest obstacles to having a cold storage facility is the cost of electricity, which is approximately three times the cost of power in Seattle. A feasibility study on the use of waste heat to generate electricity in a stand alone cold storage facility was recently conducted. The recommendation of the study was a centralized storage facility is not feasible, given the facility would not be utilized by the fish processing plants as most have their own cold storage facilities. However, there is a clear need for lower cost refrigeration and information on new electrical generation technologies has been made available to the fish processors. Another liability is the high shipping cost to import processing materials (packaging, breading, etc.), and to export finished seafood products.

Open access to the halibut and black cod fisheries ended in 1995 with the implementation of the Individual Fishing Quota (IFQ) system of management. Quotas—shares of catch—are issued only to those who owned or leased vessels that fished for halibut between 1988 and 1990. Implementation of the IFQ system in the Gulf of Alaska could cause changes in wealth, income, and jobs in Kodiak. Fleet consolidation could lead to less fleet spending and fewer jobs. Those vessels which are not profitable may be eliminated through a decapitalization process by which the equipment, quotas and histories will be for sale on the open market. Some fishermen might change where they land their catch from Kodiak to another port, resulting in less work for the processing plants and their employees (and fewer dollars being spent in the local economy). IFQ's could also have a negative impact on the resource by leading to high-grading (the act of discarding all but the highest-quality fish while filling a quota).

Visitor Industry

Assets and Opportunities. A "visitor" is typically perceived as a pleasure seeker, but for economic development purposes a "visitor" is defined as "a person who comes to spend time with or stay with others or in a place….for business, for social pleasure, for sightseeing, etc." One of the Kodiak visitor industry's biggest assets is the large amount of easily accessible public lands available for recreational use, such as hiking, sightseeing, fishing, and camping. In addition, Kodiak still offers visitors a uniqueness of character that other Alaskan communities are losing as they evolve into a mass-market destination. This has been identified as an opportunity for Kodiak to attract visitors as other Alaskan destinations reach saturation. Another asset is the local ownership of tourism-related businesses. Kodiak is also benefiting from the long-term effects of increased media exposure on a national and international level. Film projects such as National Geographic's "Island of the Giant Bears," Discovery Channel's features on the US Coast Guard Search and Rescue teams and Kodiak's diverse fishing industry, plus the Food Network's feature on "Cooking in Alaska" all serve to generate interest in Kodiak Island. Travel writers have featured Kodiak in many national and international publications. As eco-travel and soft adventure travel become increasingly popular, Kodiak is becoming a sought after travel destination. Infrastructure development to increase the meeting and convention capacity will create additional markets to be tapped. While the visitor industry in Kodiak has great potential for long term growth, it is viewed as the "weak sister" in the local economy.

Liabilities and Constraints. From a revenue-producing standpoint, visitor consumption of scenic beauty may not always generate quantifiable income, although expenditures to view this beauty may be considerable. Kodiak's share of the state's visitor market is relatively low, and historic patterns of growth have not kept pace with statewide rates. Because of the high level of local ownership of tourism-related businesses, these businesses tend to be undercapitalized while Kodiak's destination marketing program remains under-funded. Kodiak also suffers from a lack of sufficient tourism-related infrastructure necessary to handle a large influx of visitors, such as dedicated docking for cruise ships and charter boats, motor coaches, banquet facilities, public restrooms, etc. The lack of facilities to accommodate groups greater than 150 persons has deterred the attraction of large meetings and conventions to the community. However, it's this lack of mass-market appeal that is one of Kodiak's strengths in the adventure/eco-travel market. Tourism related businesses are beginning to explore this market in depth. Finally, being a non-road-connected island, Kodiak is more difficult and costly to reach than other visitor destinations within the state. There is the perception by travelers that Kodiak is difficult to access because of poor weather conditions. In fact, 95% of scheduled commercial operations are completed annually. However, the lack of runway lights, navigation aids and poorly configured runways does create difficulties accessing the outlying communities in marginal weather.

Kodiak State Airport/Transportation Development

Assets and Opportunities. Kodiak State Airport, located on property leased from the U.S. Coast Guard, has three paved runways and a large amount of flat land available for future development. Having a centralized location and year-round access to an ice-free port, Kodiak State Airport is perfectly situated to serve as a regional transportation hub for Southwest Alaska. The airport is currently served by two airlines conducting a combined seven flights daily between Kodiak and Anchorage. One air cargo and three container shipping/barge companies currently provide land, sea and air shipping services to Kodiak, making the airport an ideal trans-shipment point for ocean-borne goods to the Bristol Bay region.

Liabilities and Constraints. Air transportation to and from Kodiak is often hindered by frequent periods of low cloud ceilings and/or restricted visibility, while terrain conditions limit the number of instrument approaches available to landing aircraft. The terminal buildings located on the airport are privately owned by the airlines using them. With no public terminal buildings available, new would-be air carriers interested in serving Kodiak are faced with the large initial cost of providing their own facilities, thus limiting the number of carriers able to serve the area.

Outlying Community Economic Development

Assets and Opportunities. The outlying off-road communities are located in close proximity to fish resources, particularly salmon, giving them ample access to fresh product. Likewise, being remote, the communities are also very close to the natural resources that attract many of the island's tourists, providing an opportunity to share in the island's visitor industry. Archaeological sites located near the communities also present the opportunity for "ancestral heritage tourism". One example is the "Dig Afognak" program—visitors live in a working archaeological field camp located on Afognak Island and assist in artifact digs with a professional archaeological team. Opportunities also exist for the communities to benefit from small-scale cottage industry-level production of Native crafts or other goods.

Liabilities and Constraints. The outlying communities suffer from a lack of basic infrastructure and support mechanisms. Limited access to certain resources, for example, water for seafood processing, hinder economic development as well. Another obstacle to growth is the limited amount of human resources and job skills available in these communities. Poor weather conditions often reduce the ability of the communities to communicate with other communities and impose heavy restrictions on air and sea transportation linkages to the communities, none of which are road-connected to any other island community. Power costs are very high in all of Kodiak's outlying communities. Land use issues between the Kodiak National Wildlife Refuge and the communities also exist that could impede economic growth. Similarly, prehistoric archaeological sites located near the communities, a potential asset for tourism, may be a potential liability to economic development projects involving construction or other activities/uses inconsistent with the ancestral heritage and/or archaeological value of the site. Finally, under-funding and intertie problems with the tribal councils and city governments have been identified as a potential liability.

Overall Economic Growth and Expansion

A significant constraint, not limited to any one category of economic development within the Kodiak Island Borough, is the issue of high land values. Prices for privately owned land within the borough are relatively high due to topographical constraints and the availability of utilities. The Kodiak Island Borough has 4,800,000 acres within its boundaries. Ownership of this upland area is constantly changing with less than 1% of land being privately owned. In 2001, federally held land was 3,400,000 acres, Native Corporations; 675,000 acres, State; 639,000 acres, local government; 70,000 acres, and private land; 16,000 acres. The high land prices, given the extremely limited amount of privately held land, and development costs, due to the remoteness of the island, limit opportunities for the development of new industries and the expansion of existing ones.

Protection of Cultural Properties

There are many activities associated with economic development that have the potential to impact Kodiak's archaeological sites. The ground disturbance associated with the construction of new facilities - buildings, docks, roads, etc. has the potential to irreparably harm buried deposits. Similarly, the expansion of human access to remote areas may increase site vandalism, or promote site erosion through the development of trails, camps, boat launches, etc. As such, the effects of any development activity on local sites must be carefully considered and, where possible mitigated, to preserve Kodiak's cultural resources and the irreplaceable information they contain.

Usually, the protection of cultural properties is the responsibility of the landowners. Under Alaska law, archaeological sites are considered part of surface estate, and therefore belong to the owner of the land on which they occur. On public lands (e.g. Kodiak National Wildlife Refuge, US Coast Guard Reservation, Alaska State Parks) sites are protected by state and federal laws, most notably Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (36 CFR part 800). Under this law, any development project with the potential to disturb an archaeological deposit (known or unknown) must follow a well defined program of consultation with archaeologists and/or historians to avoid and/or mitigate negative impacts to significant cultural properties. This law is extended to projects on private lands when they involve federal or state dollars (e.g. grants, legislative appropriation) or federal or state permits (e.g. an Army Core of Engineers wetlands permit). When correctly implemented, this process preserves cultural resources without impeding development. As such, archaeological consultation should be part of the early stages of planning and budgeting for any economic development that will involve ground disturbing activities or has the possibility of promoting site disturbance.

As the majority of Kodiak's cultural properties also reflect the heritage of the Alutiiq people, consultation with the Native community over the treatment of heritage sites is also imperative. Such consultation insures that the community whose history the sites reflect are centrally involved in decisions regarding their care. Consultation should be the goal of every development project with the potential to impact cultural properties reflecting Native heritage. This consultation is required by the Native American Graves Protection and Repatriation Act (NAGPRA) - a federal law - whenever human remains

are present, regardless of land ownership. As many of Kodiak's prehistoric sites contain human remains, such consultation is both respectful and appropriate at the outset of any development project involving ground-disturbing activities. Establishing an agreement for the proper course of action should human remains be discovered saves time and money in the long run, and creates an atmosphere of mutual respect. The Alutiiq Museum and Archaeological Repository, a non-profit cultural organization governed by representative of eight Kodiak's Alutiiq corporation, is an appropriate place to begin consultation. The museum maintains a staff of professional archaeologists familiar with the consultation process and the laws that govern the treatment of both archaeological sites and the remains of Native people.

GOALS & OBJECTIVES & IMPLEMENTATION STRATEGY

Goal: Achieve stability and diversification in the fish processing industry within the Kodiak Region.

Objective: Increase value-added processing in Kodiak.

Strategy: Work with private industry to increase value-added seafood processing in Kodiak.

Action: Work with processing plant managers to determine the industry's needs to facilitate increased value-added processing in Kodiak.

Action: Determine what kinds of value-added processing are viable to Kodiak plants based on fish species delivered, shipping costs, and available equipment and infrastructure.

Action: Investigate opportunities to provide value-added processing of seafood harvested outside of the Kodiak region.

Objective: Increase the productivity of the fisheries by increasing the harvest of under-utilized species and by maximizing by-product utilization.

Strategy: Maximize utilization of the fisheries by increasing by-product and by-catch utilization, and increasing the harvest of under utilized species.

Action: Provide support for increasing the research efforts of the University of Alaska Fishery Industrial Technology Center (FITC) and the National Marine Fisheries Service located in the Kodiak Fisheries Research Center.

Objective: Increase the productivity of the seafood processing plants.

Strategy: Evaluate available options to achieve maximum utilization of electrical power, and to overcome or offset the cost of power in Kodiak.

Action: Study opportunities to reduce electrical rates through diversified power supplies.

Action: Study opportunities to lower electrical costs through increased conservation strategies.

Action: Research alternative sources of power.

Goal: Develop Kodiak State Airport as a regional transportation hub.

Objective: Encourage new air routes between Kodiak and Bristol Bay and Kodiak and the Aleutian Chain.

Strategy: Research and explore opportunities for additional air routes between Kodiak and Aleutian Island communities and Bristol Bay destinations.

Action: Survey airlines to determine what effect the provision of public terminal facilities at Kodiak State Airport would have on their ability/willingness to serve Kodiak and other Southwest Alaska communities with direct flights within the region.

Action: Work with the air carriers and the Kodiak Island Borough to develop a work plan for transferring building ownership.

Strategy: Consolidate passenger services in a single public terminal facility in order to increase public convenience and facilitate the airport's ability to accommodate growth in service.

Action: Continue feasibility study to determine if consolidated passenger services can be accommodated in one of the existing terminal buildings and if any renovations will be required, or if construction of a new facility is necessary.

Action: Work with the economic development committee, private businesses, and the Kodiak Island Borough to develop a work plan for the consolidation of passenger services into one, appropriately sized building.

Objective: Develop Kodiak as a trans-shipment point for ocean-borne goods to Bristol Bay.

Strategy: Research and explore opportunities to consolidate goods bound for Bristol Bay communities.

Action: Work with private businesses on Kodiak Island and Bristol Bay communities to develop a work plan to develop Kodiak as a potential trans-shipment point.

Objective: Facilitate the direct movement of medical personnel between Providence Kodiak Island Medical Center (PKIMC) and other medical facilities in the region.

Strategy: Research and explore opportunities for medical personnel to travel between PKIMC and other medical facilities in the region.

Action: Work with PKIMC and other medical facilities in Kodiak in their efforts to develop relationships with medical facilities in the region.

Objective: Develop facilities for couriers (i.e. U.P.S., Federal Express, etc.)

Strategy: Consolidate courier/freight services in a single public terminal facility in order to increase public convenience and facilitate the airport's ability to accommodate growth in service.

Action: Work with private businesses and the Kodiak Island Borough to develop a work plan for the consolidation of courier services into one appropriately sized building.

Goal: Transform the Visitor Industry into a significant component of Kodiak Region's economy.

Objective: Facilitate product development in Kodiak's visitor industry in order to increase visitor satisfaction and market desirability.

Strategy: Work with private enterprise and government entities to encourage the development of products to accommodate a growing visitor industry.

Action: Work with Kodiak Island Convention and Visitors Bureau to develop an on-going market research program.

Action: Identify product development opportunities from market research.

Action: Develop an inventory of existing products.

Action: Encourage local businesses to provide customer service training.

Objective: Develop a comprehensive market research plan.

Strategy: Develop a process to increase understanding of visitor expectations and buying habits.

Action: Conduct exit surveys at local air terminal to determine visitor satisfaction, buying patterns, motivators for decision-making process.

Action: Conduct exit surveys at local marine highway terminal to determine visitor satisfaction, buying patterns, motivators for decision-making process.

Action: Develop strategy to conduct market research on a tri-annual basis.

Objective: Develop a comprehensive marketing plan.

Strategy: To increase visitations by all visitor types.

Action: Coordinate marketing efforts with on-going events such as Crab Festival, Comfish Alaska, Whalefest and Bear Country Music Festival.

Action: Utilize comprehensive market research to identify visitor buying habits and motivators.

Action: Utilize market research to develop strategies for niche marketing programs.

Objective: Assist in the development of infrastructure for borough-wide visitor industry.

Strategy: Work with private enterprise and government entities to encourage development of infrastructure to accommodate a growing visitor industry.

Action: Work with Kodiak Island Convention and Visitors Bureau to develop an on-going market research program.

Action: Develop an inventory of existing infrastructure.

Action: Identify infrastructure requirements from market research.

Objective: Assist in the development of a Maritime/Fisheries Museum.

Strategy: Provide assistance in the development of a Kodiak Maritime/Fisheries Museum.

Action: Assist in identifying possible site locations and possible sources of funding.

Objective: Develop a multi-use facility to increase convention/meeting opportunities.

Strategy: Develop a multi-use facility.

Action: Support private sector development of a meeting facility.

Action: Utilize market research to determine meeting and convention needs.

Objective: Develop a community planning process specific to Kodiak tourism development.

Strategy: Provide assistance in the development of a community planning process.

Action: Work with interested parties to develop a stakeholders group to include, but not limited to, government agencies, residents and tourism-related businesses.

Action: Assist in organization of community meetings to determine degree and type of tourism development desired.

Goal: Diversify the overall economy of Kodiak Region.

Objective: Encourage business investment and foreign commerce in Kodiak by providing businesses with regulatory facilities for conducting international trade activities.

Strategy: Coordinate efforts to activate a Foreign Trade Zone (FTZ) in Kodiak on one of the 13 pre-approved sites.

Action: Work with the Department of Economic Development on the production of an FTZ brochure.

Action: Facilitate communication between the FTZ consultants and the site owners/managers as necessary.

Objective: Support the efforts of the Alaska Aerospace Development Corporation's (AADC) development of the Kodiak Launch Complex (KLC).

Strategy: Encourage the local business community to provide goods and services to the KLC.

Action: Serve as a liaison between the KLC and the local business community.

Strategy: Encourage timely and accurate information regarding KLC activities be provided to the general public.

Action: Participate on Kodiak Launch Complex Local Advisory Council, which serves as a conduit of information between KLC and the Kodiak community.

Objective: Assist in the economic development of the outlying communities of Kodiak Island.

Strategy: Assist in achieving economic goals and objectives for each of the outlying communities on Kodiak Island.

Action: Continue working with representatives from Koniag, Inc. village corporations, Kodiak Area Native Association (KANA), village tribal councils, and city governments in planning community-based economic development.

Action: Pursue expanded freight and passenger service options to outlying communities.

Action: Pursue improved communications access to outlying communities via fiber optic cable, broadband satellite communications and by supporting the petition for waiver for the utilization of schools and

libraries Internet point-of-presence in rural remote Alaska villages where no local or toll-free access exists.

Action: Continue to work with Koniag, Inc., Kodiak College and KANA to determine training needs and provide business training for residents living in outlying communities.

Action: Conduct follow-up to Kodiak Area Funding Summit to assist outlying communities in their efforts to bring identified projects to fruition.

Objective: Encourage and facilitate small business development on Kodiak Island.

Strategy: Function as a single-source repository of regional economic data for use by local businesses and prospective new businesses.

Action: Publish an Economic Indicators Report for Kodiak Island.

Action: Update the Kodiak Chamber of Commerce/Kodiak Island Convention and Visitors Bureau website to be used as a source of information to attract new businesses and visitors to the area.

Action: Update the Kodiak Community Profile for use in marketing Kodiak to persons and businesses interested in relocating to the area.

Action: Update the Kodiak Chamber of Commerce multimedia presentation to reflect the current status of the region's business climate in order to attract new businesses to the area.

Strategy: Support local government entities in their efforts to develop infrastructure.

Action: Provide assistance to the City of Kodiak in their effort to secure a large scale shiplift on Near Island.

Action: Assist local government entities with their efforts to secure funding for capital improvement projects (see Appendix: Community Development Projects).

Objective: Encourage and assist in the development of improved communications systems on Kodiak Island.

Strategy: Study alternative communications systems on Kodiak Island.

Action: Continue to pursue fiber optic connectivity and broadband satellite communications to Kodiak Island via private enterprise and federal/state government departments.

Action: Explore provision of improved telecommunications systems to the outlying communities on Kodiak Island.

Performance Evaluation

Performance evaluation is an important component of the economic development process. Most simply, it gauges the organization's effectiveness in meeting its goals. To be effective, performance evaluation should be conducted on an ongoing basis and the results used to adjust or redirect organizational efforts.

This Comprehensive Economic Development Strategy (CEDS) identifies four primary goals that give overall direction to the economic development efforts of the Kodiak CEDS Committee. Under each goal are a number of objectives that articulate specific types of activity that support CEDS goals. Finally, the CEDS identifies a menu of strategies that may be employed to achieve each objective. The annual work plan of the Kodiak CEDS Committee will identify the specific activities to be undertaken and the performance measures by which their success will be evaluated.

The Kodiak CEDS Committee will prepare its annual report and performance evaluation consistent with the requirements of EDA. Annual reports will include reporting and quantifying its progress towards achieving CEDS goals and will consider the following values:

→ The extent to which the Annual Work Plan in consistent with identified CEDS goals.

→ The extent to which the Annual Work Plan is consistent with CEDS objectives.

→ The extent to which the organization is meeting the performance measures specified in the Annual Work Plan.

COMMUNITY DEVELOPMENT PROJECTS
By Community

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Akhiok	**Water and Sewer System Upgrade**	City of Akhiok	$150,000	Feasibility Study	Alaska Native Tribal Health Consortium (ANTHC)
	Electric Power System Upgrade	City of Akhiok		Design	Alaska Energy Authority, Denali Commission,
	Smokery/Small Freezer Plant	City of Akhiok		Concept	
	Permanent Dock Facility	City of Akhiok	$1.5 mil	Concept	
	Breakwater	City of Akhiok	$2 mil	Concept	
	Street Improvement	City of Akhiok	$76,000	Concept	
	Street Lighting	City of Akhiok	$89,000	Concept	
	Erosion Control	City of Akhiok	$500,000	Concept	
	Community Facilities & Equipment	City of Akhiok	$26,027	Planning	State
Larsen Bay	**Water System Improvement**	City of Larsen Bay	$650,000	Planning	Village Safe Water, ANTHC, USDA Rural Development, EPA, VSW, First Alaskans Foundation, Denali Commission
	Tribal Office Building	Larsen Bay Tribal Council	$350,000	Design	USDA Rural Development, Denali Commission, BIA, ICBDG
	Inner Harbor Facilities	City of Larsen Bay	$1.1 mil	Concept	
	Street Lights	City of Larsen Bay	$300,000	Concept/Planning	
	Erosion Control	City of Larsen Bay	$200,000	Concept	
	Parks & Rec Development	City of Larsen Bay	$85,000	Concept/Planning	

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Port Lions	**Multi-purpose Cultural Center**	Port Lions Tribal Council		Concept	KANA, Denali Commission, HUD's ICDBG, HUD's Rural Housing and Economic Development Grant , NAHASDA, ANA, Community Development Block Grant (CDBG), USDA Rural Development, Alaska Federation of Natives (AFN), BIA, EDA
	Seafood Processing Plant	City of Port Lions	$22,000	Feasibility Study	USDA Rural Development RBEG, First Alaskans Foundation,
	Regional High School	City of Port Lions	$5.5 million	Concept	
	Water Dam	City of Port Lions	$750,000	Planning	Village Water
	City Equipment	City of Port Lions	$350,000	Concept	
	Public Safety Building	City of Port Lions	$800,000	Concept	
	Water Main to Small Boat Harbor	City of Port Lions	$700,000	Concept	
	Outer Breakwater Stub	City of Port Lions	$3 mil	Concept	
	Road Upgrades	City of Port Lions	$1.15 mil	Concept	
	Harbor Building	City of Port Lions	$75,000	Concept	
	New Subdivision	City of Port Lions	$300,000	Concept	
	Dry Dock Facility	City of Port Lions	$650,000	Concept	
	Cold Storage Facility	City of Port Lions	$250,000	Concept	
	Search & Rescue Skiff and Truck	City of Port Lions	$75,000	Concept	
	Warehouse	City of Port Lions	$150,000	Concept	

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Old Harbor	**Smoked Salmon Plant**	City of Old Harbor		Concept	Bureau of Indian Affairs, HUD's Rural Housing and Economic Development Program, USDA Rural Development RBEG, DCED Mini-Grant Program, EDA, US Small Business Administration (SBA)
	Harbor Improvements	City of Old Harbor	$600,000	Concept	HUD's ICDBG, USDA Rural Development, DOT/PF, U.S. Army Corps of Engineers, Denali Commission, EDA, RBEG
	Fuel Storage Tank Removal/Upgrade	City of Old Harbor	$500,000	Construction	
	Airport and Harbor Power	City of Old Harbor	$90,000	Concept	
	Heavy Equipment Purchase	City of Old Harbor	$150,000	Concept	
	Boat Harbor Grid	City of Old Harbor	$20,000	Concept	
	Industry Research & Development	City of Old Harbor	$300,000	Concept	
	Parks & Recreation	City of Old Harbor	$3 mil	Design	
	Hydro Project	City of Old Harbor	$3 mil	Design	
	Guard Railing	City of Old Harbor	$30,000	Design	
Karluk	**Health Clinic**	Karluk Tribal Council	$300,000	Design	Indian Health Services, USDA Rural Development, Denali Commission, Bureau of Indian Affairs (BIA), HUD Indian Community Dev. Block Grant

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Karluk	**Road Upgrade**	Karluk Tribal Council		Design	DOT/PF, USDA Rural Development, BIA Roads,
	Russian Church Restoration	Karluk Tribal Council	$250,000	Design	
	Multipurpose Building	Karluk Tribal Council	$500,000	Design	
	Permanent Dock Facility	Karluk Tribal Council	$1.5 mil	Design	
	Fire Truck	Karluk Tribal Council	$300,000	Concept	
Afognak	**Sugtestun Improvement Preschool Program**	Native Village of Afognak		Concept	ANA, USDA Rural Development Community Facilities program, Headstart, HUD - Youthbuild Program, Alaska Humanities Forum, First Alaskans Foundation, VISTA, Alaska Mental Health Trust, BIA, Rasmusson Foundation, Alaska Dept of Health & Social Services
	Cultural Retreat Yurt Project	Native Village of Afognak	$14,000	Concept	First Alaskans Foundation, ANA, U.S. National Park Service's Tribal Historic Preservation grants, Alaska Humanities Forum, Alaska Mental Health Trust

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Ouzinkie	**Bulk Fuel Storage Tank Farm**	City of Ouzinkie	$50,000	Design	Alaska Energy Authority, HUD's Indian Community Development Block Grant
	Replacement/Upgrade of Sewer System (3 alternatives) **1. Repair existing outfalls, to develop a sewage lagoon, acquire a new vacuum pumper truck** **2. Install a 35,000 gallon primary settlin tank, to build a new ocean outfall and to remove existing outfalls** **3. Install a new gravity main, develop a system with manholes, a service line, lift station, a force main and to establish dedicated easements**	City of Ouzinkie	$286,000 $515,000 $1.5 million	Concept Concept Concept	Village Safe Water, Alaska Native Tribal Health Consortium, Alaska Dept of Environmental Conservation, USDA Rural Development/EPA/Indian Health Services, Access Grant
	Breakwater & Small Boat Harbor	City of Ouzinkie	$1.5 mil	Construction	
	Heavy Equipment Upgrade	City of Ouzinkie	$500,000	Planning	
	Power Generation Improvement	City of Ouzinkie	$95,000	Concept	
	Water Treatment Plant	City of Ouzinkie	$50,000	Planning	
	Computer System & Office Equip	City of Ouzinkie	$23,000	Planning	
	Heavy Equipment Storage Facility	City of Ouzinkie	$200,000	Concept	
	Rock Separator & Rock Pit Development	City of Ouzinkie	$150,000	Concept	
	City Office Building	City of Ouzinkie	$350,000	Concept	

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Ouzinkie	**Teen Center & Equipment**	City of Ouzinkie	$300,000	Concept	
	Outdoor Recreation Facility	City of Ouzinkie	$150,000	Planning	
	Clinic Building Restoration	City of Ouzinkie	$100,000	Concept	
	Boardwalk & Trails	City of Ouzinkie	$100,000	Design	DCED/Block Grant
	Road Development	City of Ouzinkie	$150,000	Concept	
	Road Access Improvement to Hydro Electric Station	City of Ouzinkie	$50,000	Concept	
	Fire Hydrants	City of Ouzinkie	$60,000	Concept	
	Skiff Launching Ramp	City of Ouzinkie	$50,000	Planning	
	Ambulance	City of Ouzinkie	$30,000	Concept	
	Multi-purpose Facility	City of Ouzinkie	$400,000	Concept	
Kodiak	**St. Herman Harbor Loading Dock**	City of Kodiak	$ 2.5 mil	Design	Local, DOT, Congressional Appropriation
	Gibson Cove Sewer Line	City of Kodiak	$1.5 mil	Concept	Local, ADEC
	Spruce Cape Water & Sewer Line Replacement	City of Kodiak	$2 mil	Concept	Local, ADEC
	Near Island Trail Design & Construction	City of Kodiak	$200,000	Design	Local
	Large Vessel Lift Facility Design	City of Kodiak	$200,000	Concept	
	Monashka Dam Phase II	City of Kodiak	$ 5 mil	Design	

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design, Construction	Potential Funding Sources
Kodiak Island Borough	**Kodiak Fairgrounds Water & Septic System**	KIB	$120,000	Concept	
	Transfer of MarkAir Terminal	KIB	$1 mil	Concept	
	Public Boat Launch Facilities	KIB	$25,000	Concept/Design	
	Cold Storage Facility	KIB	$1.4 mil	Concept	
	Borough Parks Construction & Upgrades	KIB	$330,000	Design	
	Road Projects (10)	KIB	$5.445 mil	Concept	
	School Projects (5)	KIB	$15.25 mil	Concept/Design	
	Mission Lake Tide Gate	KIB	$40,000	Design/Construction	
	Hospital Projects (3)	KIB	$1.08 mil	Concept/Design	
	Landfill Projects (2)	KIB	$2.55 mil	Concept/Design	
	Fisheries Research Bldg Addition	KIB	$25 mil	Concept	
	Anton Larson Boat Ramps & Ext'n	KIB	$800,000	Design	
Alaska State	**ADF&G Building**		$3.85 mil	Planning	
	Rezanof Dr. Repaving		$1.8 mil	Planning	
	Chiniak Highway Hazard Removal		$300,000	Planning	
	Chiniak/Pasagshak Road Paving		$20 mil	Planning	
	Anton Larsen Bay Road Switchback Removal		$8 mil	Planning	
	Kodiak State Airport A & E Plans		$500,000	Planning	
	Kodiak State Airport Expansion/Upgrade		$5 mil	Planning	
	Cape Chiniak Realignment/Erosion Control		$350,000	Planning	

Community	Project	Local Contact Organization	Estimated Cost	Project Status: Concept, Planning, Feasibility Study, Design or Construction	Potential Funding Sources
Alaska State	**Otmeloi Bike Trail**		$500,000	Planning	
	Island Lake Road Upgrade		$500,000	Planning	
	Kodiak Launch Complex Facilities		$4.5 mil	Planning	
	Kodiak College Classroom Rehabilitation & Completion		$400,000	Planning	
	Kodiak College Parking Lot Expansion		$50,000	Planning	
	Port Lions Airport Master Plan Stage 2		$290,000	Planning	
	Ouzinkie Airport Master Plan Stage 3		$251,000	Planning	